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ARCHAEOLOGIA
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ARCHAEOLOGIA
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MISCELLANEOUS TRACTS
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I.—*The Excavations at Vounous-Bellapais in Cyprus, 1931-2*
By P. DIKAIOS, L. ès L., F.S.A., Curator of the Cyprus Museum

INTRODUCTION

Abbreviations used in this paper

<i>R. D. A. C.</i>	= <i>Report of the Department of Antiquities, Cyprus.</i>
<i>Gjerstad, Studies</i>	= <i>Studies in Prehistoric Cyprus.</i>
<i>Myres, Handbook</i>	= <i>Handbook of the Cesnola Collection of Antiquities from Cyprus.</i>
<i>Frankfort, Studies</i>	= <i>Studies in Early Pottery in the Near East.</i>
<i>Schaeffer, Missions</i>	= <i>Missions en Chypre.</i>
<i>Erimi</i>	= P. Dikaïos, <i>Excavations at Erimi</i> in <i>R. D. A. C.</i> , 1936, i, pp. 1-81.
<i>S. C. E.</i>	= <i>Swedish Cyprus Expedition.</i>
<i>B. S. A.</i>	= <i>Annual of the British School at Athens.</i>
<i>P. of M.</i>	= Evans, <i>The Palace of Minos at Knossos.</i>
<i>A. J. A.</i>	= <i>American Journal of Archaeology.</i>
<i>Curator's Report</i>	= <i>Annual Report of the Curator of Antiquities, Cyprus.</i>
<i>J. R. A. I.</i>	= <i>Journal of the Royal Anthropological Institute.</i>
<i>A. A. A.</i>	= <i>Liverpool Annals of Archaeology and Anthropology.</i>

EARLY in 1931 the District Police at Kyrenia sent to the Cyprus Museum a number of Red Polished vases collected on the site of Vounous, 1½ miles approximately east of the villages of Bellapais and Kazaphani.¹ Soon afterwards I was able to proceed to the site and saw that extensive looting was being carried out. On my return to Nicosia I pointed out to the authorities of the Museum the necessity of saving the site which appeared to be promising. Although the funds available were very small I was authorized by the Museum Committee to start excavation on their behalf on a small scale. The first few tombs proved to be important, a fact which rendered the necessity of excavating the site systematically more urgent. Through donations collected by Mr. R. Gunnis, then A.D.C. to the Governor and Member of the Museum Committee, and myself our operations lasted for about three weeks. During this period tombs 1-20 were cleared.² News was, however, coming regularly that the villagers had resumed looting, and in June of the same year I was able to spend about a fortnight excavating another 11 tombs and thus reached the figure of 31.³ The following year, thanks to a generous donation made by

¹ This site is mentioned by Gjerstad, *Studies in Prehistoric Cyprus*, pp. 8 ff. It will be observed that I have used the accusative of the name of the site, i.e. Vounous, which in the nominative is Vounoi, in all cases even where the latter should normally have been used. The reason for this is that I wanted to avoid confusion with other sites in Cyprus, such as Vouni and others. In fact, in local tradition, the site is referred to more frequently as Vounous than Vounoi.

² Preliminary Report was published in *Illustrated London News*, 31st October 1931, pp. 678 ff.

³ *Illustrated London News*, 5th December 1931, pp. 891 ff.

EARLY CYPRIOT NECROPOLIS AT "VOUNOUS" BELLAPAI



Fig. 1. The Vounous necropolis. Sketch Plan

EXCAVATIONS AT VOUNOUS-BELLAPAIS IN CYPRUS, 1931-2 3

Mr. J. C. Gaffiero, of Nicosia, I was able to spend, in May, a third season and clear another group of 17 tombs, thus reaching the total figure of 48 tombs.¹

The greater number of the tombs excavated was situated on the western part of the necropolis where the rock is of good quality and looting naturally easy. Our excavations, however, saved a good part of the necropolis. In 1933 the National Museums of France obtained permission to excavate at Vounous in collaboration with the Cyprus Museum, and Mr. Claude F. Schaeffer² and myself directed the operations. In 1937 Mr. J. R. Stewart at the head of an expedition sponsored by the British School at Athens conducted an excavation in the eastern part of the necropolis never touched by us.³ Looting in this part had been on a very small scale, as practically all the tombs had fallen in owing to the soft quality of the rock. Thus a great part of the site was saved.

During the excavations I was assisted by Mr. George Anastasiou, Museum Assistant, who carried out the duties of foreman and in many cases of expert digger.

The field plan (fig. 1) was carried out by the Land Registration Office, the Director of which, Mr. Godwin Austin and his Assistant in Surveys, Mr. J. Mace, are warmly thanked. The tomb-plans and section in their final form (the originals having been drawn by myself) and the drawings of the vases and other objects are the work of Mr. A. Diamantis. The coloured drawings were prepared by Mr. Piet de Jong whom I specially thank.

All the references on the drawings were marked by Miss E. Dray who also rearranged all the plates of drawings.

My gratitude is due to Mr. A. H. S. Megaw, Director of Antiquities in Cyprus and to Dr. R. E. M. Wheeler, for valuable support; to Miss K. M. Kenyon who supervised the rearrangement of the plates in the Institute of Archaeology, London; to Mr. J. R. Stewart who generously placed at my disposal the general conclusions from his excavations at Vounous; Mr. A. Athanasiades, Mukhtar of Bellapais, who facilitated my work during the excavations in many ways and smoothed away a number of difficulties.

The publication of the results of the excavations has been delayed owing to other work which intervened meanwhile. The decision of the Society of Antiquaries to publish them in *Archaeologia* has enabled me to overcome the financial problem which was not a minor one. The Society may find here the expression of my deepest gratitude. My gratitude is also due to the

¹ *Ill. London News*, 10th December 1932, pp. 928 ff. and *Proceedings of the International Congress of Prehistoric and Protohistoric Sciences*, London, August 1932, pp. 183 ff.; also *Syria*, xiii, 1932, pp. 345 ff., and *Man*, August 1933, p. 134.

² *Missions en Chypre*, 26 ff.

³ *Antiquity*, September 1937, p. 356.

Government of Cyprus, who contributed £50 towards the cost of the reproduction of the coloured plates.

THE EXCAVATIONS

THE SITE

The necropolis of Vounous is situated about $1\frac{1}{2}$ miles north-east of the village of Bellapais and about an equal distance south-east of Kazaphani. It extends over the north slopes of a hillock (pl. III, *a*) which is bounded on the east and west by ravines and, on the north, is separated from the north slopes of the Kyrenia range by a deep valley. The slope of the hillock, on which the necropolis lies, extends northwards and to the sea uninterruptedly. The top of the hillock forms a plateau of a rather small extent, the south slope of which is abrupt and drops down to the valley. The necropolis is therefore independent and bounded naturally on the three sides, the south, east, and west. Its extent towards the north, i.e. to the direction of the sea, has no natural boundary, but this may safely be fixed at the pathway leading to Ayios Epiktitos, the next village; near this pathway Iron Age tombs have been opened by villagers.

From the plateau of the Vounous hillock a wonderful view may be obtained in all directions. South-west, against the slopes of the mountains, appears the cloister of Bellapais with its imposing walls, clustered by the white houses of the village. Farther west, in the distance stands the elegant silhouette of St. Hilarion, and north-west are seen Kyrenia and its castle. The view over the sea on the north is vast; on the east Ayios Epiktitos is seen in the distance. Everywhere the country is luxurious, and olive trees and caroub trees form the main plantations. There is probably no other scenery in Cyprus so luxurious and so full of vestiges of the past situated in such an harmonious setting.

Prehistoric remains are quite abundant in the neighbourhood of Vounous. Thus on the north slopes of Bellapais a neolithic settlement has been noticed.¹ Another neolithic site has been found near Ayios Epiktitos;² a little beyond the latter village is the neolithic site of Troulli.³ A Bronze Age site (probably settlement) has been noticed recently by me between Bellapais and Vounous, on the slopes east of the Bellapais Greek cemetery.

The settlement of the Vounous necropolis has not been satisfactorily located. On the hillocks west of Vounous on the other side of the ravine on a site called Tzeranies I picked up a small stone axe-head. Following this find I carried out a small trial with negative results. Tzeranies, which may have been the Vounous settlement, is covered with remains of a recent period,

¹ *Erimi*, p. 74.

² *Ibid.*, p. 73.

³ *Ibid.*, p. 72.

probably Byzantine, and it is possible that all previous remains disappeared subsequently.

DESCRIPTION OF THE TOMBS

TOMB 2¹

The dromos measures 2.90 m. in length, 1.55 m. in width, and 1.90 m. in depth and is roughly rectangular; the chamber faces north. The door slab is nearly rectangular and was kept in place by smaller stones placed on top and below.

The chamber measures 3.70 m. north-south and 4.22 m. east-west and is almost rounded (fig. 2); the rock was in a good state of preservation. The skeletons were almost entirely decomposed, with the exception of one skull found in the north-west part of the chamber in a bad state of preservation. About 1.50 m. east of the doorway were three large Red Polished vases (6, 8, and 9) and near them a large Red Polished bowl (13) containing other smaller ones. Immediately to the west were two gypsum plank-shaped idols (14, 15) (pl. xxxii, *a*).

A little distance to the south was a White Painted bowl of unique interest (32): on the outside are painted stags and other naturalistic ornaments (pl. ii, *b*). Farther south was a group of Red Polished bowls and jugs, and still farther south was a large Red Polished bowl (65) with flat handle and spout containing a great number of smaller vases, mostly bowls and jugs. Near it was another large bowl (69) (pl. xlv, 3), and about 0.50 m. to the west was a broken large Red Polished bowl with flat handle and tubular spout (83) (pl. x, *c*) and four birds modelled in the round and perched on the rim. Immediately to the south was a Red Polished jug (84) with a horned animal in relief below the handle. All the interspaces were filled with many vases of all types, and with animal bones.

The bodies must have been buried in the western part of the chamber. Here a good number of vases mostly of small size was found. In the south-western part a bird (140) belonging to bowl 77 (pl. xiv, *c*) found in the eastern part of the chamber was found. In the north-eastern part of the chamber was an oblong Red Polished incised pyxis (91) (pl. xxxvi, *a*) with two figures on either side of the mouth. One of them is a woman with an infant in her arms and the other a man. To the north were two bronze dagger blades, one of which was

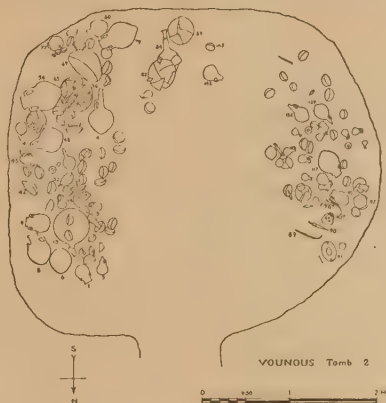


Fig. 2. Tomb 2. Plan

¹ Tomb 1 was found looted and regular excavation was thought unnecessary. One of the finds, however, appears on pl. xxxiv, *b*.

bent at the top. Other dagger blades, knives, and pins were found in various parts of this side of the chamber.

When the upper layer of vases was removed a few vases were found in the eastern and western parts of the chamber. Among these was a White Painted bowl (166) (pl. XL, *a*) with flat handle and spout.

Among the vases reconstructed from sherds is a remarkable large Red Polished jug (167) (pl. XVII, *c*) with three horned animals in relief on the upper part of the body.

FINDS¹

A. Pottery

Red Polished ware:

65, 69, 168. Bowl, large, deep, with flat base, concave sides, flat handle, and tubular spout; snake ornament pendent from or round the rim. Type II a, pl. XLIV, 3.

83. Bowl (pl. x, *c*), large, deep, with small flat base, diverging sides, and curving-in rim; flat handle and tubular spout. Four birds modelled in the round, perched on the rim, two looking inside and two outside. Snake and rope ornament in relief below the rim. Diam. 0.46 m. Type II a.

13. Bowl, large, wide, with rounded base, diverging sides, bent-in rim, and open spout at the rim. Type V, pl. XLV, 7.

62 examples. Bowl, small hemispherical, with string-hole projection at the rim, black inside and outside round the rim. Type VI b, pl. XLVI, 3.

17, 31, 155, 157, 169, 171. Bowl, as preceding, incised. Type VI b, pl. XLVI, 3 *a*.

29, 43, 71, 137. Bowl, hemispherical with open spout at the rim. Type VI d.

42. Bowl, as preceding, but with horizontal loop handle on rim. Type VI f, as pl. XLVI, 7.

27, 52, 53, 101. Bowl, shallow with projections on rim. Type X a, as on pl. XLVII, 6.

4. Bowl, shallow with long vertical loop handle at the rim. Type VI g, pl. XLVI, 7 *b*.

63. Bowl, conical with flat handle, tubular spout, projections at the rim. Incised. Type IX c, pl. XLVII, 2.

125. Bowl, conical with small flat base, and two projections on the rim. Incised. Type IX a, as on pl. XLVI, 15.

77. Bowl, shallow with two birds on the rim, one looking r. and the other l. Diam. 0.18 m. Type X e, pl. XIV, *c*.

45, 54. Amphora, oval, with wide tapering neck, flaring rim, and knobbed handles from neck to shoulder. Type II a, pl. L, 4.

1, 9. Amphora, globular with rounded base, cylindrical neck, handles from neck to shoulder. Type VII a, pl. LI, 10.

79, 117. Amphora, oval with flat base, concave neck, handle from neck to shoulder. Type III, pl. L, 7, 8.

6, 24, 41, 48, 51, 132. Jug, oval with pointed base, tapering neck, knobbed handle from neck to shoulder. Relief ornamentation on neck. Type I b, pl. XLVII, 12.

¹ In many cases the description of a vase does not coincide in every detail with the type to which reference is made. This is due to the extreme variety in the shape and the difficulty in obtaining types which represent individual vases in every possible detail.

167. Jug, shape similar to preceding, snake ornament in relief on the neck. Three horned animals, two looking r. and one l., in relief on neck. Height 0.65 m. Type I b, pl. xvii, c.

84. Jug, shape similar to preceding, horned animal in relief on the body below handle. Type I b.

119, 129. Jug, similar to preceding; incised. Type II c.

142. Jug, globular with cylindrical neck, out-turned rim, handle from neck to shoulder. Type III c, similar to pl. XLIX, 3, but much smaller.

38. Jug, oval with pointed base, cut-away neck, handle from rim to shoulder. Type VIII b, pl. LII, 10.

8. Jug, globular with flat base, wide concave neck, handle from neck to shoulder, loop handle on the shoulder. Type V b, pl. XLIX, 9.

80. Jug, similar to preceding, but without loop handle; string hole at the base of neck. Handle from rim to shoulder. Type V b, similar to pl. L, 2.

95. Jug, oval with flat base, wide cylindrical neck, out-turned rim, handle from rim to shoulder. Type V b, similar to pl. L, 2.

3, 16, 23, 60, 103, 104, 113, 116, 120, 153, 162. Juglet, pear-shaped with tapering neck, funnel rim, handle from rim to shoulder. Incised. Type VI b, pl. LII, 7.

5. Juglet, similar to preceding, but with handle from neck to shoulder. Incised.

46, 122. Juglet, pear-shaped or globular with short cylindrical neck. Type VI b, as pl. LII, 8.

49. Juglet, similar to preceding, with small plank-shaped idol in front. Incised.

158. Juglet, pear-shaped with cut-away neck. Incised. Type VIII b, pl. LII, 11.

81, 124. Juglet, oval with cut-away neck, handle from rim to shoulder. Type VIII b, pl. LII, 10.

131. Juglet, nearly cylindrical, with flat base, two necks (both missing), and handle from necks to shoulder. Incised. Pl. LIII, 1.

11 examples. Bottle, pear-shaped with tapering neck and funnel rim, upper part blackened. Incised. Type III, pl. LIII, 2.

91. Pyxis, of oblong shape; flat rectangular lid, plank-shaped idol of woman holding infant in her arms, and male figure standing on either side of the mouth. Incised ornamentation, parallel zigzag, and straight lines on the body and on the base. Length 0.22 m. Type III, pl. xxxvi, a.

76. Composite vase, two cups with tall handle. Type I b.

White Painted ware:

166. Hemispherical small bowl, with flat rectangular handle and relief ring round it; tubular spout below the rim. Three curved projections on the rim. Shape identical with Red Polished bowls, type VI e. The clay is brown and the surface is covered with pinkish polished slip, and the ornamentation is applied in thick mat paint. The pattern consists of a wavy line below the rim and vertical groups of bands consisting of straight lines enclosing wavy ones or line of dots, and dividing the surface into panels. These are filled with groups of three horizontal parallel strokes. Such strokes decorate the handle and spout. Diam. 0.17 m. Type I b, pls. LV, 3 and XL, a.

32. Shallow bowl, with semicircular spout and three knobs and relief band by the rim. One of the knobs has a horizontal string-hole. The clay is brownish and the surface is covered with pinkish polished slip on which the ornamentation is applied with dark red mat paint. The pattern consists of a group of two circles enclosing a wavy line round the base. Bands of vertical straight or wavy lines or of both vertical strokes and tree ornament divide the surface into eight panels. These are decorated with stags, fork-shaped signs and others in the shape of double fork and with quadrangle filled with dots. Alternate straight and wavy lines decorate the outside of the spout. Diam. 0.18 m. Type I c, pls. II, *b*; LV, 6; LVIII, 1.

26, 154. Shallow bowl of form similar to preceding. The surface is covered with a buff creamy-coloured slip and the pattern is applied in mat red. There is a ridge all round below the rim. The ornamentation consists of a double circle round the base and bands of straight lines enclosing a wavy one or two wavy enclosing straight verticals from rim to the circles on the base. Diam. 0.14 m., 0.13 m. 26 belongs to type II d; 154 belongs to type II b, similar to pl. LV, 9.

B. Miscellaneous

14, 15. Two plank-shaped idols of gypsum of the type usually occurring in Red Polished ware. Length 0.25 m. and 0.22 m. (pl. XXXII, *a* and fig. 27, p. 137).

28, 47, 144. Spindle-whorls of Red Polished ware decorated with incised ornamentation. Types III, IV, pl. LIX, 8, 9.

165. Four white paste spherical beads.

C. Bronzes

89, 90, 107. Dagger-blade with mid-rib, and tang with curved end. Two of these are bent at the top. Type II, pl. LX, 2.

94, 106, 109. Knife with tapering or broad blade, rectangular tang, and rivets on the tang or the blade. Types II a, II b, and III b, pl. LX, 5, 6, 9.

86, 87, 88, 96. Pin without distinct head. Type III, pl. LX, 17.

99, 128, 133, 141. Pin with distinct conical head. Type II, pl. LX, 16.

TOMB 3

The dromos measures 1.90 m. in length, 1.50 m. in width, and 1.50 m. in depth. Besides the main chamber there is a side one on the east which at the time of the opening communicated with the main chamber through the south-west side.¹ The door slab was rounded and fastened with smaller stones, but it seemed to have been disturbed in later times.

The chamber measures 3.88 m. north-south and 4 m. east-west, and is rounded except that the north-western side is somewhat depressed to the south (fig. 3).

¹ This was found empty.

The skeletons were decomposed, except two badly preserved skulls found in the west side of the chamber. Near the north-eastern side of the chamber there was a bronze pin (86) together with a spindle-whorl (48). Near them was a large jug (49), round which was a group of small vases. A little distance

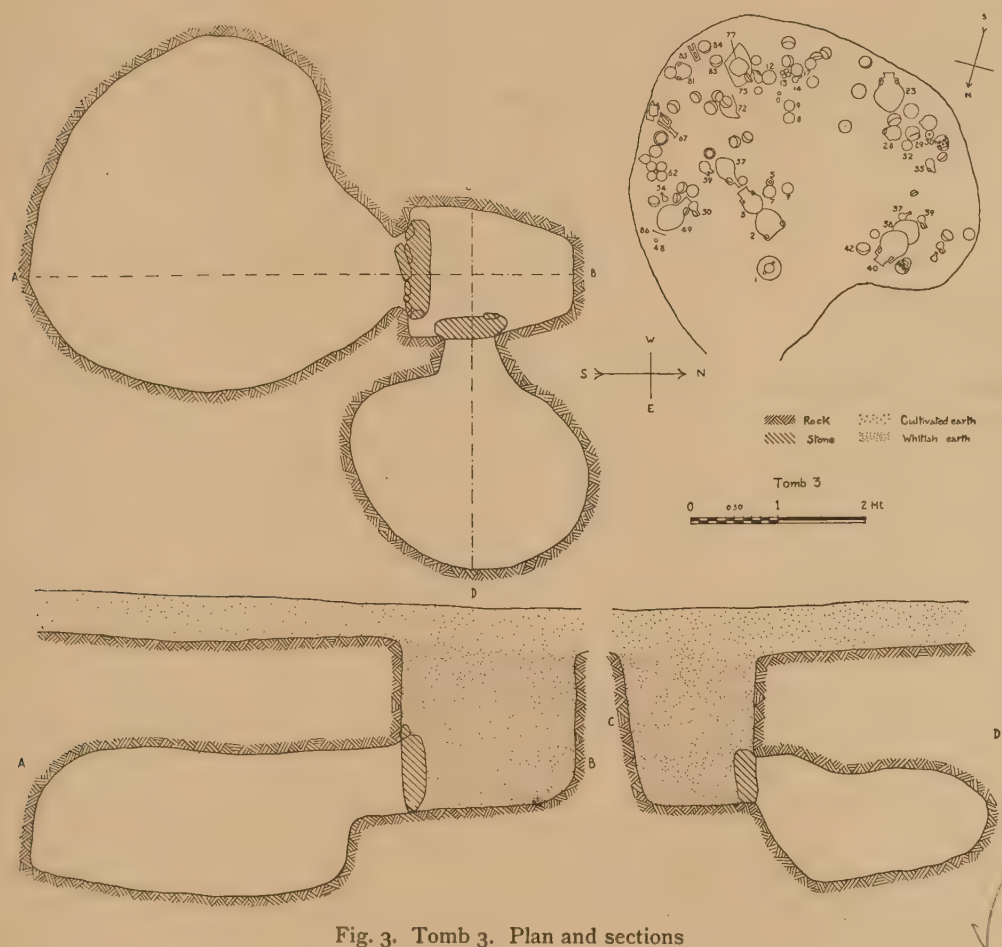


Fig. 3. Tomb 3. Plan and sections

from them was a small double-necked jug (59), and 0.40 m. to the east a composite vase (62). The upper part of its handle was found about 1 m. to the south (85). Not far to the south, the jug (67) and other vases were found in fragments. About 0.55 m. west was a fragment of a large Red Polished bowl (72), with elaborate ornamentation in relief in which bowl no. 71 was found. Immediately to the south was another fragmentary large Red Polished bowl (73) in which was another smaller bowl (77). Another composite vase composed of four small bowls (13) was found at a short distance to the west. A large Red Polished amphora (23) was found near the south-east side of the tomb, and

near it a White Painted bowl (26, pls. XL, *d*, LV, 9) with open spout. About 0.45 m. north-east was a skull and groups of small vases. A fragmentary large Red Polished jug (38) and a large Red Polished amphora (40) were found in the north-east part of the tomb near which was a skull with various small vases.

It is interesting to remark that large bowls (71 and 73) and jug 38 have been found in a fragmentary state, and that the fragments of other vases (e.g. 62) have been found in two different places. This may be connected with the fact that the doorway had been disturbed by recent looters.

FINDS

A. Pottery

Red Polished ware:

73. Bowl, large, wide, with flat base, diverging sides and turned-in rim, ledge handles at the rim, snake ornament all round near the rim and stripes enclosing snake pendent from the handles. Type III b, similar to pl. XLV, 4.

Bowl, small, hemispherical with string-hole projection at the rim, black inside and outside round rim. 44 examples. Type VI b, pl. XLVI, 3.

51, 63. Bowl, as preceding with open spout. Type VI d.

66, 77. Bowl, shallow, with two or four projections on the rim. Type X a, pl. XLVII, 6.

24. Bowl, as preceding but with open spout. Type X c, pl. XLVII, 7.

1, 23, 40. Amphora, oval with flat base, wide tapering neck, out-turned rim, and knobbed handles from neck to shoulder. Type II a, pl. L, 4, 5.

3. Amphora, globular with rounded base, long cylindrical neck, flat rim, and two small knobbed handles at the neck base. Type VII a, pl. LI, 10.

29. Amphora, globular with short cylindrical neck, flat rim, and two small handles at the neck base. Relief bands round neck and shoulder. Type VI b, pl. LI, 8.

38, 57, 67. Jug, oval with pointed base, tapering neck, flaring rim, handle from neck to shoulder, snake ornament in relief on neck. Type I b, pl. XLVII, 12.

6, 49. Jug, oval with rounded base, rather wide cylindrical neck and out-turned rim, handle from neck to shoulder. Type III c, pl. XLIX, 3.

30, 39, 45, 50. Juglet, pear-shaped with tapering neck, funnel rim, and handle from rim to shoulder. Incised. Type VI b, pl. LII, 7.

11, 33. Juglet, oval with rather wide cutaway neck, handle from rim to shoulder. Type VIII e, similar to pl. LII, 14.

59. Juglet, globular with two necks, upper parts missing. Comparable with type II c.

5, 14, 37, 54. Bottle, pear-shaped with tapering neck, funnel rim, upper part blackened. Incised. Type III, pl. LIII, 2.

44. Bottle, globular with short cylindrical neck. Incised. Type I.

62. Composite vase, four cups, tall ladder-shaped handle. Incised. Type II a, comparable to pl. XXVII, *a*.

13. Composite vase, four small cups, handle missing. Type II a.

2, 28, 81. Cooking pot, oval or globular with small flat or rounded base; 2 belongs to Type II d, as on pl. LI, 4; 28 and 81 belong to Type I c.

White Painted ware:

26. Nearly hemispherical bowl, with flattened base, pierced knob at the rim, and semicircular spout below the rim. Ridge below the rim. The surface is covered with burnished creamy-coloured slip, and the patterns are painted in mat red. Ornamentation: circles round the base and line round the rim. Vertical bands of straight lines enclosing wavy ones or wavy enclosing straight from rim line to base. Diam. 0.16 m. Type II b, pls. LV, 9; XL, d.

B. Miscellaneous

48. Spindle-whorl of Red Polished ware. Type I, pl. LIX, 7.

10. Spindle-whorl of bone, flat bottom and domed top, as on pl. LIX, 1.

C. Bronzes

35, 58, 86. Pin of plain type without distinct head. Type III, pl. LX, 17.

TOMB 5¹

The dromos measures 2.90 m. in length, 1.45 m. in width, and 1.60 m. in depth. The main chamber faces north. The door slab was rounded, and was kept in place by smaller stones placed on the sides.

The chamber measures 3.20 m. north-south and 3.44 m. east-west, and is of irregular shape; it presents three recesses along the three sides (fig. 4). In the western recess there was a skeleton *in situ*, lying on its back, with the head to the north. The hands were lying by the side of the body, the left leg was straight and the right was somewhat bent at the knee. On the breast were three bronze pins, and near the left foot two bowls (1, 2). About 1 m. south of the doorway was a large Red Polished jug (3) with snake ornament on the neck and two horned animals on the shoulders (pl. xvii, a). About 1 m. south-east of the entrance was a White Painted composite vase (14) composed of a globular jug surmounted by another smaller one (pls. xli, c; LV, 8). A little distance south-west of it was a remarkable Red Polished incised goblet (16) with low stem, two birds with cups in front of them placed on the rim (pl. xvi, a). About 0.40 m. to the west was a large Red Polished jug (20), and farther to the west and south smaller vases of Red Polished plain and incised ware. Among them, in the south-west part of the chamber, was a bronze knife-blade and 0.40 m. to the south a spindle-whorl.

¹ Tomb 4 was found looted and systematic excavation was thought unnecessary.

FINDS

A. Pottery

Red Polished ware:

Bowl, small, hemispherical with string-hole projection at the rim, black inside and outside round rim. Ten examples. Type VI b, pl. XLVI, 3.

1, 5, 10, 18. Bowl, as preceding. Incised. Type VI b, as on pl. XLVI, 3 a.

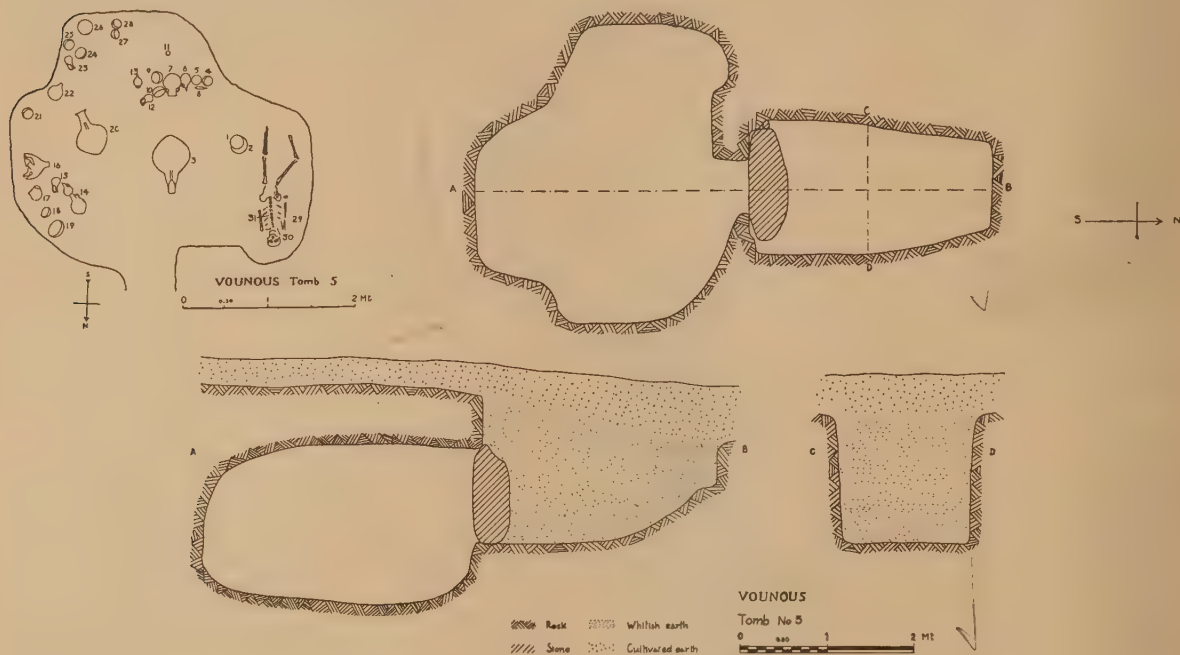


Fig. 4. Tomb 5. Plan and sections

19. Bowl, hemispherical with four rectangular projections on the rim. Incised. Type VI c, similar to pl. XLVI, 4.

22. Bowl, shallow with string-hole projection and open spout at the rim. Type X b, as on pl. XLVII, 5, but with longer spout.

16. Goblet (pl. xvi, a), with low cylindrical stem, pierced horizontally. Two birds, one looking r. and the other l., perched on the rim. In front of each bird is a small cup and behind a curved projection. The birds are decorated with incised strokes suggesting plumage. On the goblet below rim four groups of concentric circles with connecting bands of parallel lines. Height 0.18 m. Diam. 0.20 m. Type II.

7. Amphora, globular with rounded base, cylindrical neck, out-turned rim, and handles from neck to shoulder. Type VII a, pl. LI, 10.

20. Jug, oval with rounded base rather wide, tapering neck, flaring rim, and handle from neck to shoulder. Type III b, pl. XLIX, 2.

3. Jug, oval with wide cutaway neck, handle from rim to shoulder, snake ornament, and straight stripes in relief on the neck. Round shoulder snake ornament, and

below two horned animals in relief, one looking left and one right. Height 0.64 m. Type IV d, pls. xvii, a, xlix, 6.

12, 15, 23. Juglet, pear-shaped with tapering neck, funnel rim, and handle from rim to shoulder. Incised. Type VI b, pl. lii, 7.

6. Juglet, globular with cutaway neck, handle from rim to shoulder. Type VIII b, as on pl. lii, 10.

17. Cooking pot, globular with wide low neck and handle from rim to shoulder. Type I c.

White Painted ware:

14. Composite vase, globular juglet with cylindrical neck and handle, surmounted by a second smaller one with cutaway neck and small handle. The surface is covered with a burnished pinkish slip on which the ornamentation is applied in thick mat paint; horizontal parallel lines enclosing horizontal strokes, single or double. Height 0.42 m. Type I f, pls. xli, c; lv, 8.

B. Miscellaneous

11. Spindle-whorl decorated with incised ornamentation. Type III, pl. lix, 8.

C. Bronzes

8. Knife, with short tang and three rivets. Type II a, similar to pl. lx, 5.

29, 31. Plain pins. Type III, pl. lx, 17.

30. Pin, with eye-hole through the middle. Type IV, pl. lx, 17 a.

TOMB 6

The dromos measures 2.60 m. in length, 2 m. in width, and 1.90 m. in depth, and is of the usual type, but along the upper part about 10 cm. below the top of the dromos there is a ledge 10 cm. in width running all round (fig. 5). Besides the main chamber there is a small side chamber opening on the west. The sides of the main doorway had collapsed in most parts, and thus the door-slab did not cover the whole of it.

The chamber measures 3.84 m. north-south and 4.50 m. east-west, and was so well preserved that the marks of the pick-axe which cut the rock were still visible on the sides (pl. iii, b). The shape is rounded, but the west side swells and forms a niche measuring 1 m. in length and 0.60 in width (fig. 5).

The human remains were entirely decomposed, and no evidence regarding the number of burials was saved. There was a large number of vases grouped in the east part of the chamber. The western side contained a few vases of small size, but in the north corner, just below the doorway, there were three large vases (1, 4, 7).

In the north corner of the east part of the chamber there were a bronze needle and a pin (113, 114). Farther south there were three large vessels, and

next to them a large bowl (96), in which was a large jug (94) and a small bowl. West of it was another large bowl (101), with two flat handles and two tubular spouts and most interesting relief ornamentation consisting of four U-shaped ornaments and snake ornament on the handles (pl. XI, *a*). Another large bowl was found farther west, and on the south a series of large jugs. Immediately after these there was a large bowl (78) which contained five hemispherical bowls. Towards the west there were two large bowls (44 and 45), one inside

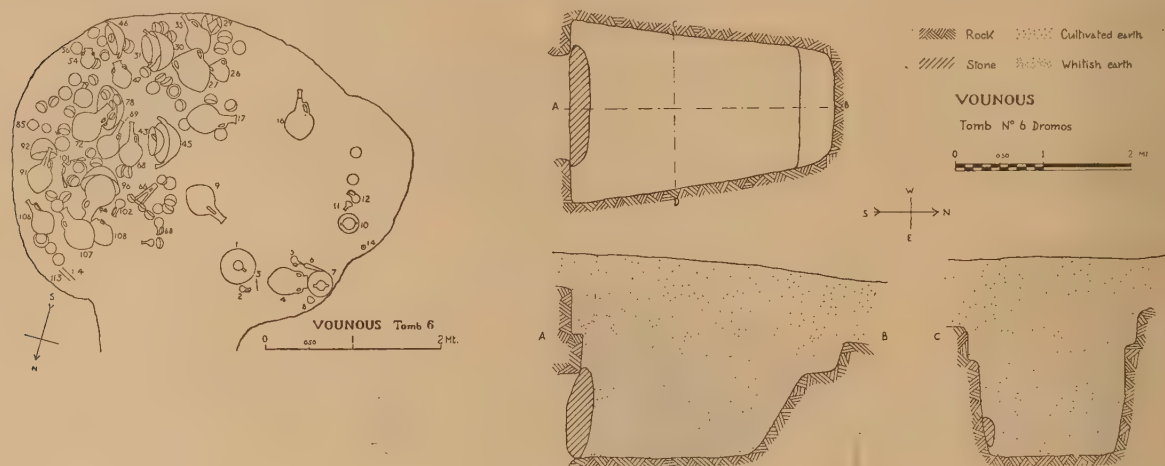


Fig. 5. Tomb 6. Plan and sections

the other, the upper containing smaller bowls. A similar group formed of large bowls (30 and 31) was farther south, and not far from it a large bowl (46). All these large bowls were surrounded by smaller bowls, while in the interspaces were vessels of larger size. Tomb 6 was notable for the exceptional number of large vessels, 26 in all, of which 9 were large bowls.

Among the vases of smaller size was a composite vase of type II a, (66) and three White Painted bowls. Besides vases, the west side contained a spindle-whorl and a bronze dagger-blade.

Tomb 6 was a typical well-preserved Vounous tomb of period II with a large number of vases of exceptional size giving a good picture of the original arrangement of the finds.

FINDS

A. Pottery

Red Slip ware:

115. Bowl, conical with small flat base, bent-in rim, and four projections on the rim. Upper part blackened. Incised. Type I, pl. XLVI, 1.

18. Shallow bowl, with turned-in rim, pierced knob at the rim, and incised ornamentation. The clay is well silted and yellowish and the surface well smoothed and burnished. It is, moreover, covered with a very light red coloured wash. Type II.

Red Polished ware:

31, 44, 45, 46. Bowl, large, deep with small flattened base, converging sides, flat handle, and tubular spout. Similar to Type II b, pl. XLIV, 5.

101. Bowl (pls. XI, a, XLIV, 6), shape as previous, but with two flat handles and two spouts. Relief rope ornament round rim, U-shaped ornament pendent from the rim, and snake ornament on the handles. Diam. 0.38 m. Type II a.

93. Bowl, with flat base, converging sides, tubular spout, and horn-shaped handle below rim. Type II b, pl. XLIV, 7.

30, 78, 96. Bowl, large, wide with small flat base, diverging sides, bent-in rim, and ledge handles, vertical stripes enclosing snakes pendent from the handles. Type III b, similar to pl. XLV, 3.

Bowl, small hemispherical with string-hole projection at the rim, black inside and outside round rim. Fifty-two examples. Type VI b, pl. XLVI, 3.

Bowl, similar to preceding with open spout. Eight examples. Type VI d.

100. Bowl, small, hemispherical with flat handle and tubular spout. Incised. Type VI e, pl. XLVI, 6.

Bowl, small, shallow, and projections on rim. Five examples. Type X a, pl. XLVII, 6.

7. Amphora, oval with flat base, cylindrical neck, flaring rim, and handles from neck to shoulder. Type II a, pl. I, 4.

47, 108. Amphora, similar to preceding, neck tapering, no neck line. Type II a, pl. I, 5.

4, 54. Amphora, similar, but with concave neck. Type III, pl. I, 7, 8.

16, 28, 29, 68, 69, 91, 106. Jug, oval with pointed base, tapering neck, funnel rim, knobbed handle from neck to shoulder. Type I b, pl. XLVII, 11 and 12.

12, 102. Jug, similar to preceding. Incised. No. 102 has cutaway neck. Type II c, similar to pl. XLVIII, 7.

1, 9, 17, 72, 94, 107. Jug, with oval body, pointed base, rather wide tapering neck, flaring rim, handle from neck to shoulder. Type III b, pl. XLIX, 2.

2. Juglet, pear-shaped with tapering neck, funnel rim, and handle from rim to shoulder. Type VI b, pl. LII, 7.

63. Juglet, oval with tapering neck, flaring rim, handle from neck to shoulder. Similar to type I b.

5. Juglet, oval with wide cutaway neck, handle from rim to shoulder. Type VIII e, pl. LII, 14.

Bottle, pear-shaped, tapering neck, funnel rim. Upper part blackened. Incised. Three examples. Type III, pl. LIII, 2.

66. Composite vase, four cups, tall ladder-shaped handle. Incised. Type II a.

10, 26, 27. Cooking-pot, oval with small flat or rounded base, low neck, and handles from rim to shoulder. No. 26 type I b, no. 10 type II c, no. 27 type II d.

White Painted ware:

58, 98. Bowl, rather shallow with pierced knob and semicircular spout below the rim. The surface is covered with creamy burnished slip on which the ornamentation is applied in thick mat red paint. Ornamentation: line round rim and two concentric

circles on base. Bands of straight lines enclosing wavy ones, or wavy ones enclosing straight from rim to base. The latter is, moreover, decorated with short horizontal parallel strokes painted in the interspaces. 98 type I c, similar to pl. LV, 7; 58 type II b, similar to pl. LV, 9. Development of pattern of no. 58, pl. LVIII, 3.

85. Shallow bowl, with buff surface and mat red paint. Four horned projections on the rim. Ornamentation similar to previous. Type III, pl. LV, 10.

B. *Miscellaneous*

14. Spindle-whorl, domed, incised. Type III, pl. LIX, 8.

C. *Bronzes*

6. Dagger-blade, with tang curved at the top. Type I, pl. LX, 1.

3. Pin, with distinct head. Type II, pl. LX, 16.

114. Pin, with no distinct head. Type III, pl. LX, 17.

113. Needle, with flat top and eyelet. Type I, pl. LX, 18.

FINDS FROM THE SIDE CHAMBER

A. *Pottery*

Red Polished ware:

Bowl, small, hemispherical with string-hole projection by the rim; black inside and outside rim. Six examples. Type VI b, pl. XLVI, 3.

7, 10. Bowl, shallow with projections on the rim and open spout. Type X b, pl. XLVII, 5.

6. Amphora, oval with cylindrical neck and two knobbed handles from neck to shoulder. Type VII a, similar to pl. LI, 9.

8. Jug, oval with tapering neck, cutaway rim and handle from rim to shoulder; incised. Type II b, pl. XLVIII, 7.

5. Bottle, pear-shaped, with tapering neck, and funnel-rim; upper part blackened. Type III, pl. LIII, 2.

TOMB 7

The dromos measures 2.50 m. in length, 1.70 m. in width, and 1.50 m. in depth; it was not entirely cleared as a caroub tree was planted in it. It, however, seemed to belong to the usual type.

The chamber measures 2.70 m. north-south and 3.72 m. east-west, and is of elliptical shape (fig. 6). The skeletons were entirely decomposed, but a few animal bones were still preserved. The bulk of the pottery finds were grouped in the east part of the chamber. In the north-east part, just below the doorway, was a large Red Polished jug (44), and not far from it a group of Red Polished large vases (18, 28, 30) encircling a Red Polished composite vase (29) composed of four hemispherical bowls surmounted by a ladder-shaped

tall and thick handle, on top of which a small amphoriskos is placed (pl. xxvii, *c*). East of vase 44 was a group of large and smaller vases which extended all along the east part of the chamber. Among these vases, which are of Red Polished ware, was a White Painted bowl (20, pl. xl, *b*), and near the south side of the chamber a large amphora (13), 0.67 m. in height, placed horizontally. Near its rim was a bronze dagger (12). The western part of the chamber contained very few finds, among which were two bronze pins (2 and 3), a bronze knife (9), and a spindle-whorl (10).

FINDS

A. Pottery

Red Polished ware:

77. Large deep bowl, with small flat base, flat rectangular handle, and tubular spout below the rim, joining-piece from rim to spout. Relief ornamentation: straight vertical stripe and snake horizontal ornament emerging from either side. Similar to pl. x, *d*. Type II a, shape comparable with pl. XLIV, 4.

79. Large wide bowl, with small flat base, convex sides, and four ledge handles. Straight stripes and snake ornament pendent from the handles. Type III b, comparable with pl. XLV, 4.

Small hemispherical bowl, with pierced knob at the rim, black inside and outside round the rim. Thirty-eight examples. Type VI b, pl. XLVI, 3.

24, 38. Small hemispherical bowl, as previous, with semicircular spout at the rim. Type VI d.

43. Small hemispherical bowl, with horizontal loop handle. Type VI g, comparable with pl. XLVI, 7 a, but without the spout.

7. Small hemispherical bowl, with three flat handles and tubular spout. Incised ornamentation. Type VI e, comparable with pl. XLVI, 6.

13. Amphora, oval body, concave neck, raised flat base, and flaring rim. Two rounded handles from neck to shoulder. Type IV a, comparable with pl. L, 9.

30. Amphora, with flat base, cylindrical neck, flaring rim, and two knobbed handles from neck to shoulder. Incised bands on neck and buttons in relief on body. Type VII a, pl. LI, 9.

63. Amphora, with globular body, small flat base, cylindrical neck, flaring rim, and two vertical handles on the shoulder. Type II b, pl. L, 6.

28, 34, 53, 59, 60, 78. Jug, with oval body, pointed base, tapering neck, and flaring rim; handle, plain or knobbed, from neck to shoulder; small ornament in relief on the neck. Type I b, pl. XLVII, 12.

18, 44. Jug, with oval body, rounded base, short, rather wide cylindrical neck, out-turned rim, and handle from neck to shoulder. Type III c, pl. XLIX, 3.

45, 50. Jug, with rounded body, short wide neck, flaring rim, and handle from rim to shoulder. On 50, additional horizontal loop handle on shoulder. Type V b, pl. L, 2.

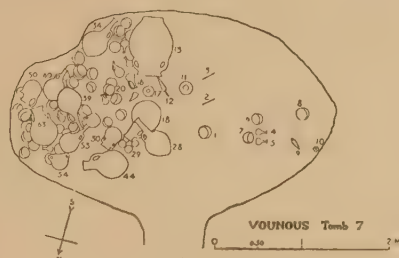


Fig 6. Tomb 7. Plan

15, 47. Juglet, with oval body, rounded base, cutaway neck, and handle from rim to shoulder. Plain. Type VIII b, pl. LII, 10.

14, 16, 32, 36. Juglet, with pear-shaped body, tapering neck, and funnel rim, handle from rim to shoulder. Incised ornamentation. Type VI b, pl. LII, 7.

Bottle, with pear-shaped body, tapering neck, funnel rim. Upper part of body blackened. Incised ornamentation. Seven examples. Type III, pl. LIII, 2.

54. Cooking-pot, with globular body, low neck, and two handles from rim to shoulder. Type I c.

29. Composite vase (pl. xxvii, c). Four hemispherical bowls, tall ladder-shaped handle, and small amphoriskos on top. Incised ornamentation on bowls and handle. Type II c.

Black Polished ware:

19. Bottle, with conical body, flat base, cutaway neck, and two small pierced knobs at the base of the neck. Incised ornamentation (similar to pl. xxxix, a).

White Painted ware:

20. Shallow bowl (pls. XL, b, LV, II), with four projections on the rim, one of which is pierced with two holes. The surface is covered with a creamy-coloured burnished slip and the ornament is painted in mat red: two concentric circles on the base; alternate ladder and tree pattern from rim to base. Diam. 0.14 m. Type I e.

B. Miscellaneous

10. Spindle-whorl. Plain. Type I, pl. LIX, 7.

C. Bronzes

12. Dagger-blade with tang curved at the top. Type III, pl. LX, 3.

9. Knife, with rectangular tang and one rivet. Type II a, pl. LX, 5.

2, 3. Pin, with no distinct head. Type III, as pl. LX, 17.

TOMB 8

The dromos measures 3 m. in length, 1.65 m. in width, and 1.40 m. in depth. Besides the main chamber there is a side one opening on the west side. The doorways were of a somewhat rounded shape.

The chamber measures 3.20 m. north-south and 4.18 m. east-west, and is rounded but compressed along its north-south axis (fig. 7). This chamber was remarkable for the vases of large size and especially large bowls, which contained other smaller vessels and bones of oxen. The tomb gifts were gathered in the east part of the chamber (pl. III, c), while in the west only a very few small vases were found. There is no evidence about the burials, as all the skeletons were entirely decomposed.

About 1.60 m. east of the doorway there was a large bowl (12) which contained an amphora (10) and a small bowl, and not far from it, farther south-east, was a fine goblet (17) with tubular foot, and two birds alternating with two small cups placed on the rim (pl. xvi, *b*). Farther south was another large bowl (24) containing another large bowl with flat handle and tubular spout (23), and a double-necked jug decorated with incised ornamentation (22). Near it was another large bowl (32) with flat handle and spout containing another large bowl with spout (31), in which were a large jug (27) and three hemispherical bowls, among them a white painted bowl (34). Next to this group was another large bowl (44), which contained a large number of large and small vessels, and near it the large bowl (51) which again contained smaller vessels, among them a gourd-shaped handleless bottle of plain white burnished ware (47) and incised ornamentation (pls. xxix, *b*; LIII, 5).

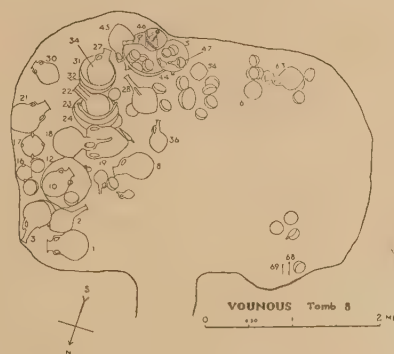


Fig. 7. Tomb 8. Plan

The west side of the chamber was nearly empty, with the exception of a few vases of small size grouped in the south-west and north-west parts of the chamber. Among the latter group were two bronze pins (68, 69).

A second layer was cleared immediately below the upper layer. The finds, which were all grouped in the eastern part of the chamber, consisted of vases of small size and hemispherical bowls. Among these were one composite vase (91) composed of many cups, and another (97) composed of two small juglets surmounted by tall rectangular handle (pl. xxxii, *b*). In the extreme south-western corner of the chamber was a nearly hemispherical White Painted bowl (106). A bronze pin was found in the south-western part of the chamber. The side chamber had already been rifled and contained only two vases, one large bowl, and one jug of Red Polished ware.

This tomb was another typical Vounous tomb of period II with a wonderful accumulation of large bowls containing smaller ones and animal bones, and a good number of interesting types of pottery, Red Polished and White Painted.

FINDS

A. Pottery

Red Polished ware:

23, 32, 51. Large deep bowl with convex sides, small flat base, flat handle, and tubular spout. Ring round handle, U-shaped or snake ornament in relief pendent from the rim. Type II a, similar to pl. XLIV, 3, 4.

12, 24, 44. Large open bowl, with diverging sides, turned-in rim, and four ledge handles, straight stripes or snake ornament pendent from the handles. Type III b, similar to pl. XLV, 4.

31. Large open bowl, with flattened base, ledge handle, vertical stringholes, and tubular spout. Plain. Type IV, pl. XLV, 6.

Small hemispherical bowl, with pierced knob by the rim. Black inside and outside round the rim. Forty-eight examples. Type VI b, pl. XLVI, 3.

Small hemispherical bowl, similar to above, with short open spout. Eight examples. Type VI d.

50, 54. Shallow bowl, with horned projection on rim. Type X a, similar to pl. XLVII, 6.

39, 65. Shallow bowl, with open spout. Type X b, similar to pl. XLVII, 5.

Small hemispherical bowl, with flat handle and tubular spout. Incised. Type VI e, as pl. XLVI, 6.

61. Bowl of deep form, with low cylindrical foot and two horned projections on the rim. Incised ornamentation. Type VII c, similar to pl. XLVI, 10.

16. Bowl of deep form, with cylindrical foot, three horned projections, and two small cups on the rim. Incised ornamentation. Type VII c, pls. XIII, *f*; XLVI, 10.

17. Goblet, with spreading sides, high tubular stem with spreading base. Two small birds looking inside the bowl opposite one another and two small cups between the birds set on the rim. Height 0.23 m. Type III, pls. XVI, *b*; LIII, 10.

21. Amphora, with oval body, flat base, tapering neck, flaring rim, and angular handles from neck to shoulder. Type II a, pl. I, 4.

1, 10, 30. Amphora, with globular body, rounded base, cylindrical or concave neck, flaring rim, and angular handles from neck to shoulder. 10 belongs to Type III, similar to pl. I, 8, the remainder to type IV a, as on pl. I, 10.

2, 3, 9, 28, 36, 45, 63, 110, 112. Jug, oval body, pointed base, tapering neck, flaring rim, and handle from neck to shoulder. Snake ornament in relief on neck. Type I b, as on pl. XLVII, 12.

46. Jug, as previous, with incised ornamentation on the neck and body. Type II c, comparable with pl. XLVIII, 7.

22, 96. Jug, as previous, but with two necks. Incised ornamentation. Type II c, similar to pl. XLVIII, 10.

8, 27. Oval jug, with rounded base, rather wide, slightly tapering neck, flaring rim, handle from neck to shoulder. Type III b, pl. XLIX, 2.

18. Globular jug, with rounded base, curved neck, beak-shaped spout, and twisted handle from rim to shoulder. Relief bands on neck and body, two round projections on body. Type IV b, pl. XLIX, 5.

104. Oval jug, with rounded base, short wide cylindrical neck, out-turned rim, and handle from rim to shoulder. Type V b, as on pl. I, 2, but without the shoulder handle.

5. Juglet, with oval body, cutaway neck, and handle from rim to shoulder. Type VIII b, pl. LII, 10.

13, 25, 85. Juglet, with pear-shaped body, tapering neck, funnel rim, and handle from rim to shoulder. Incised ornamentation. Type VI b, as on pl. LII, 7.

48, 102. Bottle, pear-shaped, tapering neck, funnel rim, upper part blackened. Type III, pl. LIII, 2.

10, 86. Cooking-pot, of globular or oval shape, low neck, and two handles. 19 belongs to type I a, as on pl. LI, 2. 86 belongs to type I c.

91. Composite vase (pl. xxvi, *b*). Four hemispherical bowls surmounted by basket angular handle. Height 0.20 m. Type I a.

97. Composite vase, two globular juglets surmounted by a ladder-shaped handle. Height 0.23 m. Type III a, pl. xxxii, *b*.

Plain White ware:

47. Bottle (pls. xxix, *b*; LIII, 5), pear-shaped with rounded base, tapering neck and straight rim, two string-holes near the rim. The surface is covered with a creamy-coloured furnished slip and is decorated with incised ornamentation; bands consisting of hatching enclosed by parallel lines alternating with bands of zigzags. The incisions are filled with red filling. Type II.

White Painted ware:

34. Nearly hemispherical bowl, with pierced projection at the rim, open spout below the rim. Ridge below the rim. The surface is covered with white creamy-coloured furnished slip and the decoration is painted in red mat paint. Concentric circles round base. Vertical bands composed of straight lines enclosing wavy ones from rim to base. Short strokes in the interspaces. Type II b, as on pl. LV, 9.

14, 106. Similar to above, but without ridge; 14 = type I c; 106 = type II c.

B. *Bronzes*

20. Dagger-blade, with tang curved at the top. Type II, pl. IX, 2.

7, 68, 69, 109. Pin, with distinct top. Type II, pl. IX, 16.

TOMB 9

The dromos measures 3.80 m. in length, 1.40 m. in width, and 1.50 m. in depth. The main chamber faces north and is small, measuring 1.70 m. north-south, and approximately 3 m. east-west. Besides this there is a large chamber measuring 4.30 m. east-west and 4.38 m. north-south, opening on the east. This chamber communicates on the south-west with the main chamber, probably as a result of the collapse of the partition. Along the south side the chamber presents a triangular recess measuring 2 m. east-west and 1 m. north-south. Its floor is 0.40 m. above the general floor of the chamber.

The main chamber contained a very small number of Red Polished vases, among which was a Red Polished incised composite vase (140) composed of three small juglets supporting a fourth (pl. xxxi, *c*). The skeletons in the large chamber were very decomposed, and no evidence regarding the number

or method of burials could be collected. The vases were spread over the whole area of the chamber. Along the north side they were rather few. About 2.80 m. east of the doorway was a Red Polished incised model of brush (27, pls. xxxviii, *c*; lvi, 5), and about 1 m. farther east a Red Polished incised pyxis (35, pl. xxxvii, *a*). Southwards were many clusters of vases, among them a Red Polished incised 'Table for offerings' (63, pl. xxxiii, *b*). To the right was a group of small bowls and quite near, a horn (61, pl. xxxviii, *e*). Farther south-east was another Red Polished composite vase (73) composed of three cups with cylindrical foot, surmounted by a basket handle (pl. xxxii, *d*). In the central part of the chamber were large Red Polished vessels surrounded by small ones, among which was another Red Polished horn (105, pl. xxxviii, *b*). In the south-western part of the chamber was a large bowl (133) containing smaller ones. On the floor of



Fig. 8. Tomb 9. Plan

the recess were large Red Polished jugs, a Red Polished incised pyxis (141), a spindle-whorl and a bronze pin. Among the vases reconstructed from fragments found in the chamber are two Red Polished composite vases of type II a.

FINDS

A. Pottery

Red Polished ware:

133. Large wide bowl, with flattened base, diverging sides, bent-in rim, and four ledge handles. Two straight stripes and a snake ornament pendent from each handle. Type III b, as on pl. xlv, 2.

Small hemispherical bowl, with pierced knob at the rim, black inside and outside round the rim. Sixty-seven examples. Type VI b, pl. xlvi, 3.

25, 56, 111, 162. Small hemispherical bowl. Incised. Type VI b, pl. xlvi, 3 a.

60, 76, 78. Shallow bowl, with horned projections on rim. Type X a, as on pl. xlvii, 6.

96. Shallow bowl, with pierced knob and semicircular spout. Type X b, as on pl. xlvii, 5.

95. Conical bowl (pl. xiii, b), flat base, diverging sides, flat handle (missing), and tubular spout by the rim. Bucranium in relief on the upper part. Incised ornamentation of rather careless technique. Diam. 0.19 m. Type IX c.

55. Goblet (pls. xii, e; liii, 8), of hemispherical shape, with low cylindrical foot pierced through horizontally: four horned projections on the rim. Incised. Diam. 0.18 m. Height 0.17 m. Type II.

156. Amphora, with oval body, flat base, cylindrical neck, out-turned rim, rounded handles from neck to shoulder. Type IV a, comparable with pl. L, 10.

31, 38, 91. Amphora, similar to the previous, but with angular handles. Type IV a, pl. L, 10.

22. Amphora, with globular body, rounded base, small handles at the neck base. Type VII a, as on pl. LI, 10.

2, 3, 7, 14, 15, 145. Jug, with oval body, pointed base, tapering neck, flaring rim. Relief ornamentation on neck. Type I b, pl. XLVII, 12.

1, 146, 155, 158. Jug, of similar shape to previous but decorated with incised ornamentation. Type II c, comparable with pl. XLVIII, 8.

161. Jug (pl. xxv, a), of similar shape to the previous but with two necks. Incised ornamentation, groups of concentric circles, and bands of straight parallel lines joining one another forming net-work. Height 0.59 m. Type II c. No. 68 is a similar jug but has only one neck.

152, 153, 159. Jug, with oval body, rounded base, tapering neck, flaring rim, and handle from neck to shoulder. Type III b, pl. XLIX, 2.

19, 24. Jug, with oval body, rounded base, cylindrical neck, flaring rim, and handle from neck to shoulder. Type III c, pl. XLIX, 3.

87, 121. Jug, oval body, small flat base, wide, cylindrical neck, out-turned rim, knobbed handle from neck to shoulder. Type V b, as on pl. XLIX, 9.

118, 122, 126. Jug, with oval body, rounded base, cutaway neck, and handle from rim to shoulder. Type VIII b, pl. LII, 10.

Juglet, pear-shaped, tapering neck, funnel rim, handle from rim to shoulder. Incised. Eighteen examples. Type VI b, pl. LII, 7.

10. Juglet, similar to above, lower neck. Type VI b, pl. LII, 8.

36, 139. Juglet, pear-shaped body, cutaway neck. Incised. Type VIII b, pl. LII, 11.

Bottle, pear-shaped, tapering neck, funnel rim. Incised. Ten examples. Type III, pl. LIII, 2.

104. Bottle, cylindrical, with cutaway neck, and small handle at the neck base. Type IV c, comparable with pl. LIII, 3.

5. Bottle, horn-shaped with flat base. Incised. Type V, pl. LIII, 4.

141. Pyxis, of oblong shape, convex sides but somewhat flattened. Type III.

35. Pyxis (pls. xxxvii, a; LIV, 2), oblong with convex sides, flat base. Cross-shaped relief bands decorated with incisions. Incised ornamentation, composed of concentric circles, zigzag bands, etc. Height 0.13 m. Length. 0.23 m. Type V.

79. Composite vase; pear-shaped jug with cylindrical neck supporting a second smaller jug with cutaway neck. Incised. Height 0.24 m. Type I f, shape comparable with pl. LV, 8.

149. Composite vase (pl. xxxi, c): three juglets supporting a fourth with cutaway neck. Incised ornamentation. Height 0.14 m. Type V b.

73. Composite vase (pl. xxxii, d): three deep bowls, each with a long cylindrical foot; basket handle over them. Height 0.14 m. Type III b.

62. Composite vase: four hemispherical bowls, surmounted by tall ladder-shaped handle. Incised. Type II a.

84. Composite vase (pl. xxvii, *b*): four hemispherical bowls, surmounted by tall ladder-shaped handle. Incised. Type II b.

90. Composite vase: two pear-shaped juglets. Type III a.

63. Table for offerings (pl. xxxiii, *b*), composed of a rectangular flat table supported by a tubular foot. On the middle of the table is a juglet and on either side a small cup. Incised. Length 0.32 m. Height 0.17 m.

61, 105. Horn, hollow inside. Incised. Two string-holes below the rim. Pl. xxxviii, *b*, *e*.

30, 32, 51, 123. Cooking-pot, oval body, rounded base, low neck, two handles from rim to shoulder. No. 51, type II b, pl. LI, 3. The remainder belong to type II d, pl. LI, 4.

B. *Miscellaneous*

27. Model of brush (pls. xxxviii, *c*; LVI, 5). Red Polished, incised.

28, 142. Spindle-whorl. Incised. Types I and III, pl. LIX, 7, 8.

C. *Bronzes*

120. Flat knife with curved tang. Type III c, pl. LX, 10.

12, 13, 143. Pin, with no distinct head. Type III, pl. LX, 17.

TOMB 10

Tomb 10 was found empty, although the stratification in the dromos showed no sign of looting. The chamber was in a good state of preservation and the floor was bare. All the evidence tends to prove that this chamber had never been used for burial (*see infra*, p. 102).

TOMB 11

The dromos measures 3.20 m. in length, 1.70 m. in width, and 1.60 m. in depth (pl. III, *d*). There is first a sloping step, then a horizontal one, and then an abrupt slope to the floor. The door slab is an irregular block, and is fastened with small stones placed on the outside (fig. 9).

The chamber measures 3.30 m. north-south and 3.30 m. east-west and is rounded, but narrows towards the doorway (fig. 9). All the human remains were decomposed, and therefore no evidence regarding the number of the burials was preserved. The bulk of the tomb-gifts was found in the east part of the chamber. About 1.80 m. south-east of the doorway there was a large Red Polished bowl with flat handle and tubular spout (16), in which a remarkable Red Polished jug (19) decorated with three fine stags in relief, one on the neck and two on the shoulders, and with snake ornament, was found (pl. xvii, *b*). About 2 m. from the doorway,

in a direct line to the south from its centre, there was a small Red Polished plank-shaped idol (27, pl. LX, 29). Large and small vases were found in the remainder of the east side of the tomb, and near the south side was a bronze dagger-blade (45). The west side contained much fewer finds, among them a pyxis with incised ornamentation (55, pl. xxxiv, *a*), and farther north two bronze pins (49 and 51),

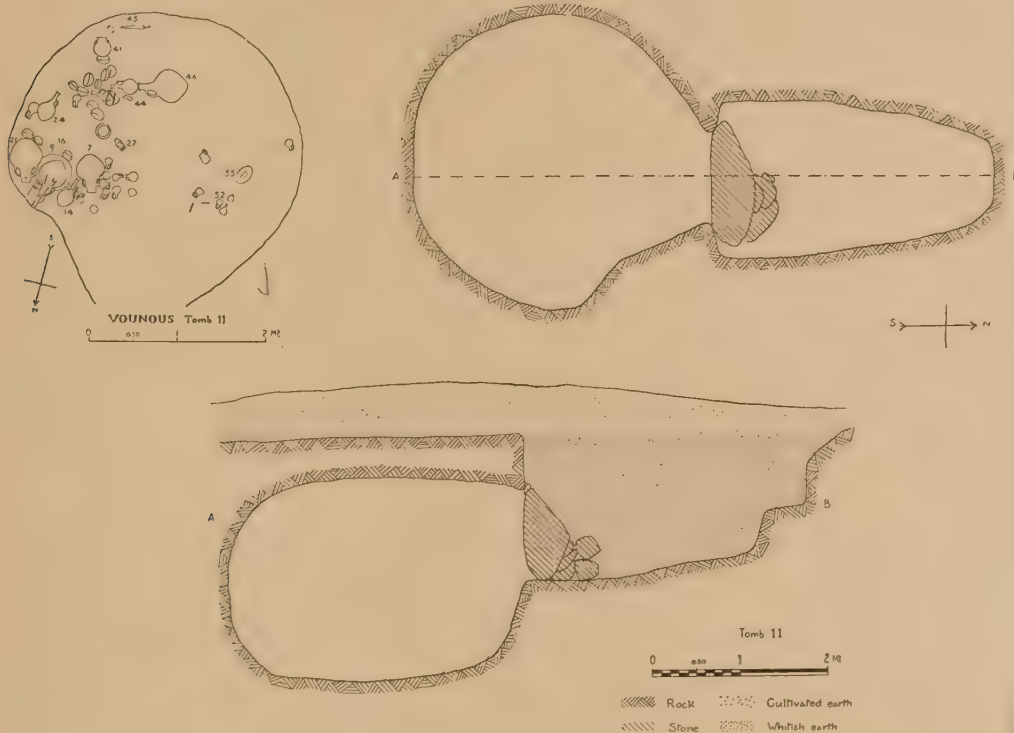


Fig. 9. Tomb 11. Plan and sections

together with vases of smaller size. Among the pottery types is a small bottle (44, pl. xxxix, *b*) and a small bowl (6) with tripod base (pl. XLVII, 8).

FINDS

A. Pottery

Red Polished ware:

16. Large deep bowl, flat base, converging sides, flat handle, and tubular spout. Snake or rope ornament round the rim or pendent from it. Type IIa, similar to pl. XLIV, 8.

Small hemispherical bowl, with pierced knob near the rim. Black inside and outside round the rim. Twenty-three examples. Type VIb, pl. XLVI, 3.

5, 64, 70, 71. Small hemispherical bowl, as previous. Incised ornamentation. Type VIb, pl. XLVI, 3a.

69. Shallow bowl, with four horned projections on the rim, two of them pierced with two string holes. Type Xa, as pl. XLVII, 6.

63. Shallow bowl, with projection at the rim and semicircular spout. Type X b, pl. XLVII, 5.

6. Hemispherical bowl standing on three legs (pl. XLVII, 8). Type X f.

21. Amphora, oval with small flat base, tapering neck, flaring rim, and rounded handles from neck to shoulder. Type II a, as pl. I, 5.

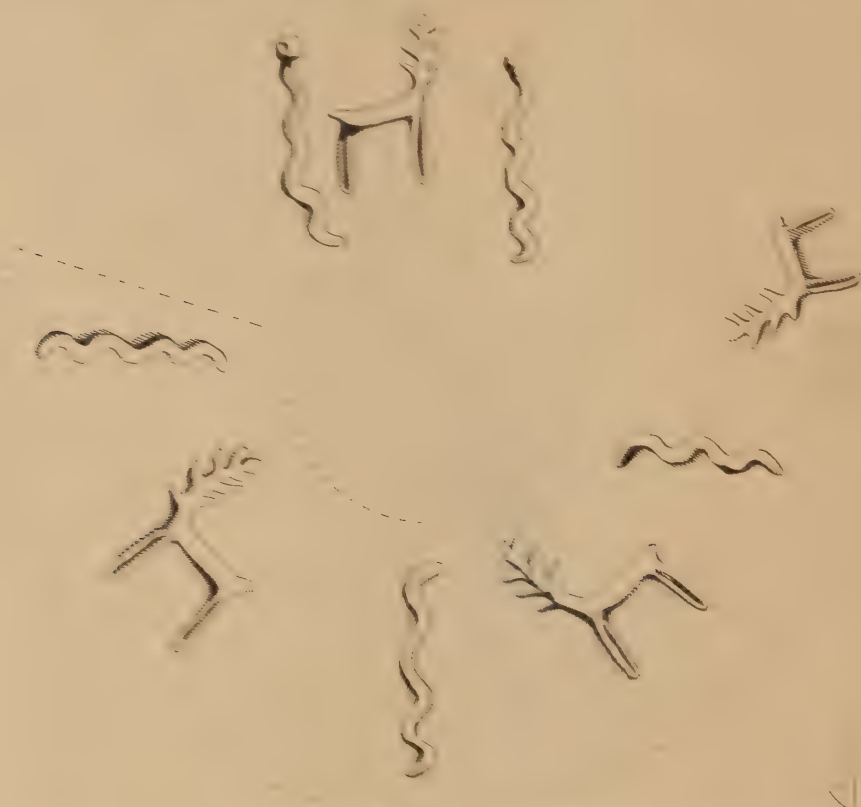


Fig. 10. Development of ornamentation in relief on Red Polished jug, no. T. 11:19

7. Amphora, of similar shape to previous, but with knobbed handles. Type II a, as pl. I, 4.

41, 50. Amphora, with globular body, rounded base, concave neck, and small handles. Type VI b, as pl. LI, 7.

19. Jug (pl. XVII, 5), oval with pointed base, tapering neck, flaring rim, handle from neck to shoulder. Ornamentation in relief: stag looking r., with snakes on either side, on the neck; on upper part of the body, three stags looking l. alternating with vertical snakes (fig. 10). Type I c.

14, 22. Jug, with oval body, pointed base, tapering or cylindrical neck, flaring rim, and handle from neck to shoulder. Types I c, pl. XLVIII, 1 (but not incised) and I d, pl. XLVIII, 4.

32. Jug, similar to 19. Incised. Type II c, comparable with pl. XLVIII, 8.

43, 40. Jug, oval body, rounded base, wide tapering neck. Type III b, pl. XLIX, 2.

18, 47. Jug, oval with rounded base, wide cylindrical neck, out-turned rim, handle from rim to shoulder. Type V b, pl. I, 2.

10. Juglet, pear-shaped, cylindrical neck, and tubular spout on the shoulder. Type VIII d, similar to pl. LII, 13 except for the neck.

Juglet, pear-shaped with tapering neck, funnel rim, and handle from rim to shoulder. Twelve examples. Type VI b, pl. LII, 7.

Juglet, similar to previous but with lower neck. Four examples. Type VI b.

52. Juglet (pl. LII, 16), with converging sides, flaring rim, and oblique handle at the rim. Incised. Height 0.07 m. Type IX b.

12. Juglet, with converging sides, raised rim, two knobs, and basket handle. Height 0.13 m. Type IX b, similar to pl. LII, 16.

54. Bottle, pear-shaped, tapering neck, funnel rim. Incised. Type III, pl. LIII, 2.

44. Bottle (pls. xxxix, b; LIII, 3), cylindrical body, low cutaway neck, small knob at the neck base, and handle from rim to shoulder. Type IV c.

55. Pyxis, oblong, flattened base, convex sides. Four string-holes by the mouth for attaching the lid. Rich, incised ornamentation on the body, the base, and the lid. Length 0.22 m. Type III, pl. xxxiv, a.

White Painted ware:

29. Nearly hemispherical bowl, with string-hole projection at the rim. Surface covered with burnished slip on which the ornamentation is applied in mat-red paint. Circle round base, wavy line below the rim, wavy lines from the rim to base. Type I c.

B. *Miscellaneous*

27. Idol, plank-shaped (pl. LX, 29), nose marked by projection, eyes by two holes, ears by two pierced projections. Two more projections at the shoulders. Incised. Height 0.15 m.

C. *Bronzes*

45. Dagger-blade, with tang curved at the top. Type III, pl. LX, 3.

49, 51. Pin, with no distinct head. Type III, pl. LX, 17.

TOMB 12

The dromos measures 3.75 m. in length, 1.75 m. in width, and is exceptionally deep, i.e. 2.20 m. The door slab is triangular. In addition to the main chamber there is a small side chamber on the south-eastern side of the dromos. This was found empty.

The chamber is of exceptionally large size (4.50 m. north-south and 5.30 m. east-west), and its shape is rounded with a small compression of the west side along the north-south axis. The human remains were entirely decomposed, and no evidence of the number of burials was preserved. The tomb-gifts were nearly all collected in the east side, and the west side was empty except for a very small number of objects (fig. 11).

Just below the entrance, on the east, there was a large Red Polished amphora (2) with the mouth closed with a small jug. Farther east was a large bowl (19)¹ which contained other smaller vases, and still farther east, not far from the side of the chamber, there was a White Painted composite vase (25) composed of four hemispherical bowls surmounted with a tall handle (pl. xli, b). The remainder of the space on this side of the chamber contained other vases

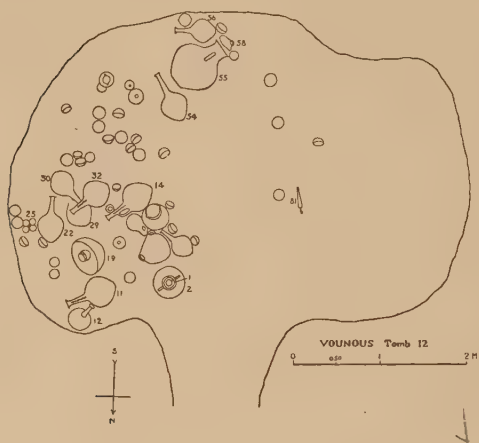


Fig. 11. Tomb 12. Plan

of large and small sizes, and along the south side there was a large amphora (55) and other vases near it, in particular a jug (54) on the handle of which there is an animal in relief. A bronze dagger (81) was found a short distance west of the centre of the chamber.

A second layer was cleared below the upper layer of vessels in the east part of the chamber. The finds consisted mostly of small vessels, mainly bowls, and the jaw of an animal. Among the vases was a White Painted bowl (70) of early type.

This tomb was characterized by the great number of large vases (28 in all), among them a great number of large jugs in a very broken state and beyond repair. The latter do not appear on the plan.

FINDS

A. Pottery

Red Polished ware:

85. Large wide bowl, with flat base, diverging sides, flat handle, and tubular spout. Snake ornament in relief below the rim and pendent from it. Type III c, pl. xlv, 5.

83. Large wide bowl, similar to previous, but with additional ledge handles. Snake ornament in relief below the rim and pendent from the ledge handles. Type III c, as pl. xlv, 5.

90. Hemispherical bowl, with rounded base, ledge handle, and semicircular spout at the rim. Type V, as pl. xlv, 7.

Small hemispherical bowl, with string-hole projection at the rim. Black inside and outside round the rim. Forty examples. Type VI b, pl. xlvi, 3.

5, 9, 77. Small hemispherical bowl, similar to previous. Incised. Type VI b, pl. xlvi, 3 a.

57. Shallow bowl, with horned projections on the rim. Type X a, pl. xlvii, 6.

73, 79. Shallow bowl, with or without projections and semicircular spout. Type X b, pl. xlvii, 5.

¹ This was broken beyond repair.

2. Amphora, with rounded body, flat base, wide tapering neck, flaring rim, and horned handles from neck to shoulder. Type II a, as pl. I, 4.

7, 55, 88. Amphora, similar to previous, but with cylindrical neck. Type IV a, as pl. I, 10.

49. Amphora, small with rounded body and base, low cylindrical neck, small handles at the neck-base. Type VI b, pl. LI, 8.

11, 12, 14, 22, 30, 32, 56, 62, 64, 86, 96, 98, 99, 102. Jug, oval, pointed base, tapering neck, flaring rim. Ornamentation in relief on neck and occasionally on body. Type I b, pl. XLVII, 12.

54. Jug, similar to above. Snake ornament on the neck. Horned animal looking l. and bucranium on the handle. Crescents and discs on the upper part of the body. Height 0.59 m. Type I b.

51, 67. Jug, similar to above. Rich incised ornamentation. Type II c, comparable with pl. XLVIII, 8.

94. Jug (pls. xxv, d; XLVIII, 10), similar to above, but with two necks. Small shallow cup on the handle. Incised ornamentation. Bands of horizontal parallel lines alternating with groups of oblique parallel strokes. Height 0.54 m. Type II c.

63, 95, 97, 100, 101. Jug, with oval body, rounded base, cylindrical or tapering neck, handle from neck to shoulder. Type III b, as on pl. XLIX, 2.

1. Jug, with globular body, low wide cylindrical neck, and handle from rim to shoulder. Type V b, pl. I, 2.

8, 13. Jug, with oval body, long cutaway neck, and handle from rim to shoulder. Type VIII b, as on pl. LII, 10.

33, 34, 52, 61, 66, 72. Juglet, pear-shaped, tapering neck, funnel rim. Incised. Type VI b, pl. LII, 7.

58. Juglet, oval, wide cutaway neck, no neck-line, handle from rim to shoulder. Type VIII e, pl. LII, 14.

15. Juglet, globular body, wide concave neck, horizontal loop handle on the rim. Type IX a, pl. LII, 15.

White painted ware :

85 a. Bowl, small hemispherical, with semicircular spout; pinkish, burnished slip. Bands of short straight lines enclosing wavy ones. Type I a, similar to pl. LV, 5.

70. Shallow bowl, string-hole projection at the rim. Fine creamy, burnished slip. Pattern painted in mat red. Bands of wavy lines enclosing straight, or straight enclosing wavy, from rim to base on which are two concentric circles. Type II b, similar to pl. LV, 9.

25. Composite vase (pl. XLI, b): four cups surmounted by tall tapering knobbed handle; fine creamy burnished slip, mat-red paint. Bands of wavy and straight lines on handle. Similar pattern on bowls. Height 0.26 m. Type II e.

B. Bronzes

81. Dagger-blade, with tang curved at the top. Type I, pl. LX, 1.

74. Tweezers. Type IV, pl. LX, 24.

TOMB 13

The dromos measures 3 m. in length, 1.70 m. in width, and 1.40 m. in depth. The main chamber faces north, and a small side chamber faces west. The door slab of the main chamber is roughly square, and was kept in place by small stones placed along the bottom.

The chamber measures 4.40 m. north-south and 5.20 m. east-west, and is rounded; the roof was in an exceptionally good state of preservation. Along the west side of the chamber there was a slightly raised area measuring 3 m. north-south and 1.20 m. east-west. Here were buried the bodies, but all the bones were decomposed (fig. 12).

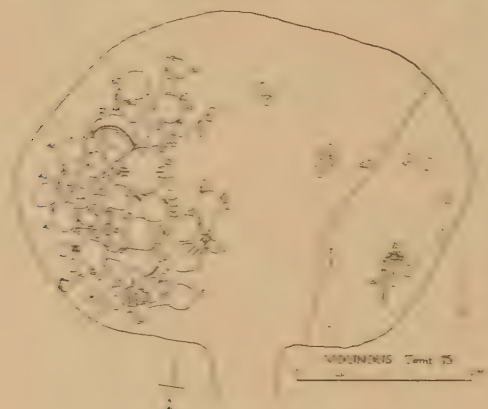


Fig. 12. Tomb 13. Plan

The bulk of the pottery was grouped in a big mass in the eastern part of the chamber forming a most typical Vounous tomb-group with great numbers of large size vases. About 1 m. east of the doorway began a cluster of large Red Polished jugs, and farther south-east another cluster of similar

jugs among which was a double-necked jug (43). Between the two clusters was a large Red Polished bowl (23). To the west of the second cluster was a larger bowl with elaborate ornamentation (29) turned upside down. After it was removed animal bones (oxen) mixed up with small hemispherical Red Polished bowls containing smaller bones, were found showing a typical collection of remains of food offerings (pl. iv, a). South-east was another large Red Polished bowl (52) with flat handle and tubular spout containing jugs and bowls. About 1 m. south-west of the centre of the tomb was a group of Red Polished incised juglets. In the northern part of the raised part was a remarkable Red Polished incised composite vase (85) copying fruits attached to the same stem (pl. xxxi, a), and very near a magnificent bronze dagger-blade (86). Other dagger-blades and bronze pins were found in other parts of the same area.

When the vases lying in the eastern part of the chamber were removed a second layer was cleared (pl. iv, b). This was composed of a large number of animal bones, possibly belonging to one animal (calf), as even one of the hoofs was found. Among the bones were many Red Polished hemispherical bowls. This layer must be connected with the earliest period of the tomb, and gives evidence of animal sacrifices in honour of the dead.

FINDS

A. Pottery

Red Polished ware:

52. Large deep bowl, flat base, convex sides, flat handle decorated with incisions and tubular spout at the middle of the body. Small horned projections at the rim. Snake ornament round the rim and others pendent from it. Diam. 0.48 m. Type II a, pls. XI, *d*; XLIV, 8.

23. Large deep bowl (pl. x, *e*), similar to previous; small projections in shape of two short horns on the rim. Horned animal looking l. on the upper part in relief. Diam. 0.40 m. Type II a.

29, 115. Large wide bowl (pls. XI, *c*; XLV, 3), with diverging sides, small flat base. Two patterns resembling inverted 'horns of consecration' enclosing snake in relief on either side by the rim. Other similar pattern connected with ledge handles on the other two sides. Diam. 0.59 m. Type III b.

116. Large hemispherical bowl, with ledge handle and semicircular spout. Type V, pl. XLV, 7.

Small hemispherical bowl, with string-hole projection at the rim, black inside and outside round the rim. Thirty-six examples. Type VI b, pl. XLVI, 3.

17, 119. Small hemispherical bowl, similar to above. Incised. Type VI b, pl. XLVI, 3*a*.

96. Small hemispherical bowl, with four projections on the rim. Incised. Type VI c, pl. XLVI, 5.

50. Small hemispherical bowl, similar to above; horned projections pierced with string-holes at the rim. Type VI c, pl. XLVI, 4.

117. Amphora, oval shape, with raised flat base, cylindrical neck, flaring rim, angular handles from neck to shoulder. Type IV a, pl. L, 9.

56, 63, 65. Amphora, globular body, flat base, cylindrical neck, flaring rim. Similar to Type IV a, pl. L, 10.

14. Amphora, globular body, rounded base, cylindrical neck, flaring rim, knobbed handles from neck to shoulder. Incised. Type VII a, pl. LII, 1.

2, 53. Amphora, small, globular, base flattened or round, low neck, and small handles at the neck-base. Type VI b, VII b, pls. LI, 7 (53); LII, 3 (2).

1, 3, 15, 19, 42, 43, 46, 51, 64. Jug, oval, pointed base, tapering neck, flaring rim, relief ornamentation on neck and occasionally on body. Type I b, pl. XLVII, 12.

31, 38, 44, 48. Jug, similar to preceding. Incised. Type II c, comparable with pl. XLVIII, 8.

45. Jug, similar to preceding; two necks. Incised. Height 0.53 m. Type II c, shape similar to pl. XLVIII, 10.

25, 114. Jug, similar to above; rich incised ornamentation. Type II c, comparable with pl. XLVIII, 10.

24. Jug, oval with round base, wide tapering neck, flaring rim, handle from neck to shoulder. Type III b, pl. XLIX, 2.

4, 10, 30. Jug, oval body, rounded base, cylindrical rather wide neck, out-turned rim. Type III c, pl. XLIX, 3. No. 10 is smaller.

18, 57. Jug, oval, rounded base, cutaway neck, handle from rim to shoulder. Type VIII b, pl. LII, 10.

Juglet, pear-shaped, tapering neck, funnel rim, handle from rim to shoulder. Incised. Fifteen examples. Type VI b, pl. LII, 7.

71. Juglet, as previous but with cutaway neck. Type VIII b, pl. LII, 11.

94. Bottle, cylindrical, flat base, short cutaway neck. Incised. Similar to type IV c, pl. XXXIX, c.

91. Bottle, nearly cylindrical, flat base, narrow cutaway neck. Incised. Type IV b, similar to pl. XXXIX, a.

Bottle, pear-shaped, tapering neck, funnel rim. Incised. Five examples. Type III, pl. LIII, 2.

85. Composite vase (pl. XXXI, a): three joined oval juglets with a common stem, shaped as a long neck. Incised bands on necks, concentric circles and vertical bands on juglets. Height 0.37 m. Type V a.

47. Composite vase, four cups surmounted by ladder-shaped handle. Incised. Type II a, similar to pl. XXVII, a.

11, 37, 40, 55, 89. Cooking-pot, with rounded body and base, low neck, and two handles from rim to shoulder. Type II d, pl. LI, 4.

Black Polished ware:

21. Bottle, pear-shaped, tapering neck, small string-hole projection by the rim. Type VI a, pl. LIII, 12.

8. Bottle, as previous but without projection, two string-holes below the rim.

White Painted ware:

107. Bowl, nearly hemispherical, with ridge round the rim and semicircular spout below it. Round the base: two circles enclosing wavy line, bands of straight lines alternating with straight ones from rim to base. Type I c, comparable with pl. LV, 7.

B. *Miscellaneous*

13. Ladle, with hole through the end of the handle. Pl. LIX, 14.

C. *Bronzes*

86, 87. Dagger-blade, with tang curved at the top. Type I, pls. LX, 1; XLII, a.

83, 112. Knife, with tang and one or three rivets. Type II a, pl. LX, 5.

79. Pin, with flat top. Type I, pl. LX, 15.

84. Pin, with no distinct top. Type III, pl. LX, 17.

9. Tweezers. Type I, as pl. LX, 20.

TOMB 15¹

This tomb is one of the finest tombs in the necropolis owing to the exceptional number of the finds, their remarkable quality, and their great variety.

¹ Tomb 14 was found looted and regular excavation was thought unnecessary.

The dromos measures 2.30 m. in length, 1.50 m. in width, and 1.80 m. in depth, and the door slab was fastened with small stones placed at its base.

The chamber, which measures 3.00 m. north-south and 5.26 m. east-west, is rounded, but the west side presents a niche of 2.20 m. in length and 1.30 m. in width, of which the floor is raised by 0.10 m. above the general level of the chamber (fig. 13). The skeletons were entirely decomposed, and no indication of the number of burials could be detected. However, the disposition of some of the small finds, and in particular of the two necklaces of paste beads described below, show that the bodies were placed in the western part of the chamber with the heads, in one case towards the door, and in another, near the south side of the chamber.

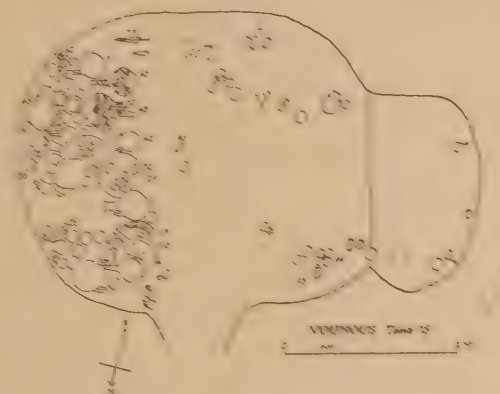


Fig. 13. Tomb 13. Plan

The bulk of the vases was piled along the east side of the chamber, and formed an imposing mass which contained some remarkable types. Immediately on the left of the doorway there was a group of large bowls (4, 10, 13) one inside the other; the topmost one contained a large jug. Other smaller vases, among them a boat-shaped pyxis (o. pl. LIV, 1) with flat lid and incised ornamentation, were placed in each of the large bowls. Not far from this group was another large bowl with flat handle and tubular spout, in which a Red Polished composite vase (20, pl. XXXI, a), composed of three globular juglets supporting a fourth one with cutaway neck, was found, together with two other small bowls. South-east of this large bowl was another one, and a mass of vases of various sizes, among which was another composite vase, evidently copying fruit (50), composed of three oval-shaped juglets with a common long neck, resembling a stem, with open spout and small handle (pl. XXXI, b). Farther west was a large Red Polished double-necked jug (43) with very rich incised ornamentation (pl. XXIII, c), and south of it a large jug (60), with most elaborate incised ornamentation, which includes a large scheme of geometrical pattern and stags in the interspaces (pls. XXIII, b; XXII, b). In the close neighbourhood of both of these jugs were other smaller vases and two bronze weapons (73, 74). West of these was a necklace of 11 beads of green paste (75), and still farther west groups of small vases and bronze pins.

In the north-western part of the tomb was another group of 8 beads (93), two bronze pins, and a composite vase (90) composed of four hemispherical bowls, surmounted by a tall stepped handle. Two more similar composite vases were

found in the east side of the chamber (25, 62). The niche contained very few vases of small size and two bronze pins near its north side.

Among the finds along the south side of the tomb there was a flint flake (112, pl. LIX, 4).

FINDS

A. Pottery

Red Polished ware:

116. Large deep bowl, with small flat base, converging sides, flat handle and tubular spout, and joining piece between spout and rim. Two rectangular curved projections on rim, rope ornament pendent below the projections. Diam. 0.52 m. Type II a, similar to pl. XLIV, 3, 4.

10. Large deep bowl (pls. XI, d; XLIV, 4) with small flat base, converging sides, flat handle and tubular spout, small rectangular projections on the rim. Snake and rope ornament all round below the rim and snakes pendent from below the projections. Snake ornament on the handle. Diam. 0.42 m. Type II a.

32, 125. Large deep bowl, with small flat base, diverging sides, flat handle and tubular spout, ornamentation similar to 116. Type II a, as on pl. XLIV, 3, 4.

13. Large wide bowl, small flat base (pls. XI, f; XLV, 2), slightly converging sides, and four ledge handles: broad band in relief at each ledge handle. Snake ornament on either side of or between straight stripes pendent from the band: round buttons in the interspaces. Rope ornament in relief all round below the rim. Diam. 0.50 m. Type III b.

39. Large wide bowl, with small flat base, diverging sides, and four ledge handles. Snake ornament all round below the rim; bands of snake and rope ornament pendent from the handles. Type III b, pl. XLV, 4.

4, 117. Large hemispherical bowl, with string-hole projection and semicircular spout. Type V, pl. XLV, 7.

Small hemispherical bowl, with string-hole projection at the rim, black inside and outside round the rim. Forty-eight examples. Type VI b, pl. XLVI, 3.

27, 67, 120, 126. Small hemispherical bowl, similar to previous. Incised, pl. XLVI, 3a.

6, 12, 33, 36. Shallower bowl, with projections on the rim. Type X a, pl. XLVII, 6.

65. Shallow bowl, with tubular spout. Four pairs of two small horns on the rim. Incised. Diam. 0.15 m. Type X d.

38, 127. Amphora, oval body, small flat base, tapering neck, flaring rim, angular handles from neck to shoulder. Type II a, pl. L, 4, 5.

42. Amphora, with oval body, flat base, one handle from rim to shoulder, and another from neck; similar to pl. L, 5.

23, 68. Amphora, similar to previous; cylindrical neck, and small handles at the neck base. Type VII a, b, pls. LI, 10; LII, 3.

72. Amphora, with oval body (base missing), long tapering neck, and two vertical handles on shoulder. Type II b, pl. L, 6.

1, 5, 61. Jug, oval body, pointed base, tapering neck, flaring rim, handle from neck to shoulder. Type I b, pl. XLVII, 12.

49, 118, 119. Jug, similar to previous; rich incisions on neck and body. Type II c, pl. XLVIII, 8.

60. Jug, similar to previous (pls. xxii, b; xxiii, b; XLVIII, 9). Incised ornamentation (fig. 14). On neck: vertical bands and concentric semicircles on either side. On shoulder: concentric circles alternating with four incised stags looking l. Their bodies are marked with two horizontal parallel lines, impressed circles on either side, and small strokes above



Fig. 14. Development of incised ornamentation on Red Polished jug, no. T. 15 : 60

and below. Below, large band of zigzag parallel lines and various patterns (groups of strokes, rectangles filled with strokes, stylized trees, etc.) in the interspaces. Below, large groups of concentric circles and bands filled with hatched squares or strokes. Type II d.

43. Jug, of similar shape but with two necks (pl. xxiii, c). Remarkable incised geometrical ornamentation. On the neck: bands of zigzags and other patterns. On body: stylized trees, large groups of concentric circles with connecting bands filled with different patterns (circles, rectangles, etc.). Below, large band of parallel zigzag lines, below other groups of concentric circles and connecting bands similar to the upper ones. Impressed circles, dots, and strokes fill the interspaces. Height 0.65 m. Type II d.

11, 37, 68. Jug, oval with rounded or pointed base, wide tapering neck, and handle from neck to shoulder. Type III b, pl. XLIX, 2.

Juglet, pear-shaped, tapering neck, funnel rim, handle from rim to shoulder. Incised. Thirteen examples. Type VI b, pl. LII, 7.

15. Juglet, pear-shaped, cutaway neck, handle from rim to shoulder, tubular spout at the shoulder. Type VIII d, pl. LII, 13.

69, 89, 106, 124. Bottle, pear-shaped, tapering neck, funnel rim. Upper part blackened. Incised. Type III, pl. LIII, 2.

90. Bottle, conical shape, flat base, narrow cutaway neck. Incised. Type IV a, similar to pl. xxxix, a.

50. Composite vase (pl. xxxi, b): three oval juglets, with a common long stem terminating in a beak-shaped spout. Small handle at the top; three vertical stripes in relief with incised ornament along the stem. Incised ornament. Bands of short horizontal parallel lines on the stem. Concentric circles and vertical bands on the juglets.

Height 0.47 m. Type V a.

29. Composite vase (pl. xxxi, d): three globular juglets supporting a fourth, larger with beak-shaped spout. Incised ornament. Bands of horizontal parallel lines alternating with bands of zigzags on the upper juglet; on the lower ones the zigzags are replaced by groups of short parallel strokes. Height 0.44 m. Type V b.

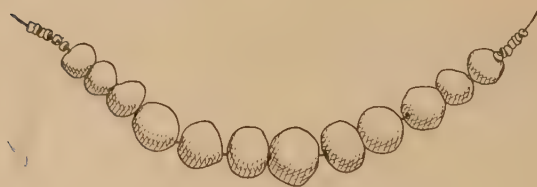


Fig. 15. Necklace of paste-beads, T. 15: 75

25, 62, 99. Composite vase: four hemispherical cups with tall ladder-shaped handle with stepped sides. Type II b, similar to pl. xxvii, b.

9. Pyxis, boat-shaped with string-holes near the mouth, and flat lid. Incised. Length 0.20 m. Type I, pl. LIV, 1.

18. Cooking-pot with cylindrical neck. Type II b, pl. LI, 3.

Black Polished ware:

81. Pear-shaped bottle, neck missing. Incised. Similar to pl. LIII, 12.

B. Miscellaneous

112. Flake of brown flint. Type I, pl. LIX, 4.

75, 93. Two necklaces of spherical and small flat beads of blue paste (fig. 15).

C. Bronzes

73. Dagger-blade with mid-rib, and tang curved at the top. Type I, pl. LX, 1.

80, 109. Knife, rectangular tang, one or three rivets. Type II b, c, pl. LX, 6, 7.

74. Knife, broad blade, square top and tang, two rivets. Type III b, pl. LX, 9.

83, 84, 85, 94, 95, 103, 104. Pin, with distinct top. Type II, pl. LX, 16.

TOMB 16

The dromos measures 3.20 m. in length, 2.10 m. in width, and 1.70 m. in depth; there is a main chamber facing north, and a side one opening on the east. The chamber is rounded, and measures 2.60 m. north-south and 3.23 m. east-west (fig. 16). The bulk of the pottery finds was grouped in the south-east part of the chamber. Immediately on the left side of the doorway was

a Red Polished jug (1), and near it a Red Polished bottle (2) of cylindrical shape with flat base. Beyond these and a few other vases this part of the chamber contained no other finds. The bulk of these was grouped in the south part. There was a large Red Polished bowl (9) with flat handle and tubular spout, containing smaller bowls, and near it another similar (10). On the south of these was another large bowl (20), and near it a remarkable Red Polished incised bowl (24) with oblong body, small flat base, flat handle, and tubular spout. South of it was a Red Polished jug (26) with three small vases (a jug in the middle and a cup on either side) placed on the upper part (pl. xxiii, *a*). About 0.60 m. west of bowl (10) was a Red Polished composite vase (18) composed of two hemispherical bowls with tall common handle. South of this vase the space was covered with small vessels and animal bones. In the west part of the chamber the finds were scanty. First of all there was a skull near the west side looking towards the north. Behind it was a bronze pin (39), and on its left a bronze ear-ring (40). Farther north was an oblong Red Polished incised pyxis (36) with flat lid.

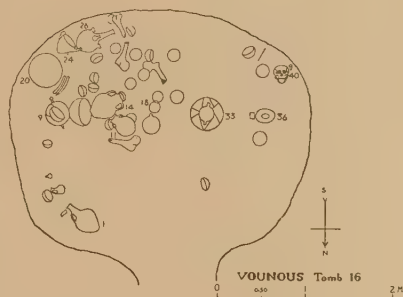


Fig. 16. Tomb 16. Plan

A lower layer containing a few vases was cleared below the vases of the upper layer. Among the finds reconstructed from sherds are a goblet (44) of Red Polished ware with the upper part blackened, and four small very stylized birds on the rim (pl. LIII, 9), a semicircular White Painted bowl (43) with open spout (pl. LV, 5), and a Red Polished incised jug with two necks (51) (pl. XLVIII, 11).

FINDS

A. Pottery

Red Polished ware:

9. Large deep bowl, with small base, converging sides, flat handle, and tubular spout. Straight vertical stripes pendent from the rim. Type II a, similar to pl. XLIV, 3.

52. Large deep bowl, similar to previous; with vertical loop handle. Type II b, similar to pl. XLIV, 5.

10. Large deep bowl, similar to previous; ledge handle, and vertical stripes in relief, pendent from it. Type II b, except for the handle.

20. Large hemispherical bowl, with vertical string-hole projection, and semicircular spout at the rim. Type V, pl. XLV, 7.

24. Smaller deep bowl, with small base, converging sides, flat handle at the rim, and tubular spout. Horizontal hole through base. Incised ornamentation. Concentric circles and connecting bands forming network. Diam. 0.22 m. Type IX d, shape similar to pl. XLVII, 4.

Small hemispherical bowl, string-hole projection at the rim, black inside and outside the rim. Twenty-five examples. Type VI b, pl. XLVI, 3.

42. Small hemispherical bowl, four projections at the rim. Incised. Type VI c, similar to pl. XLVI, 5.

17, 19, 50. Shallow bowl, with horned projections at the rim and open spout. Type X b, as pl. XLVII, 5.

44. Goblet, deep, with tubular foot, spreading at the base. The lower part is red and the upper black. Small birds at the rim. Upper part of foot pierced horizontally. Height 0.20 m. Diam. 0.15 m. Type III, pl. LIII, 9.

14. Amphora, small flat base, oval body, tapering neck, rim missing. Handles from neck to shoulder. Type II a, pl. I, 5.

11. Amphora, rounded body, flattened base, cylindrical neck and flaring rim, handles from neck to shoulder. Type VII a, similar to pl. LI, 9.

1. Jug, oval with pointed base, tapering neck, flaring rim; handle from neck to shoulder. Type III b, pl. XLIX, 1.

41. Jug, oval body, rounded base, tapering neck, handle from neck to shoulder. Incised. Concentric circles and connecting bands. Type II b, similar to pl. XLVIII, 7.

26. Jug, globular pointed base, tapering neck, flaring rim, and handle from neck to shoulder; juglet and two small cups placed on the shoulder and communicating through their bases with the main jug. Height 0.45 m. Type I b, pl. XXIII, a.

51. Jug, pear-shaped with two short necks. Incised zigzag bands round the body. Type II d, pl. XLVIII, 11.

4. Juglet, pear-shaped, tapering neck, funnel rim, handle from rim to shoulder. Incised. Type VI b, as pl. LI, 7.

18. Composite vase, two hemispherical bowls with semicircular spouts surmounted by tall solid handle with oval hole at the top. Type I b.

36. Pyxis, of rounded compressed shape. Incised. Type IV.

Black Polished ware:

5. Bottle, pear-shaped, tapering neck, two string-holes by the rim. Incised. Type VI a, pl. LIII, 12.

2. Bottle, cylindrical, flat base, neck missing. Incised. Similar to pl. XXXIX, c.

White Painted ware:

43. Bowl, hemispherical with semicircular spout; the surface is covered with creamy burnished slip; groups of three parallel strokes painted in mat red. Diam. 0.12 m. Type I a, pl. LV, 5.

B. *Bronzes*

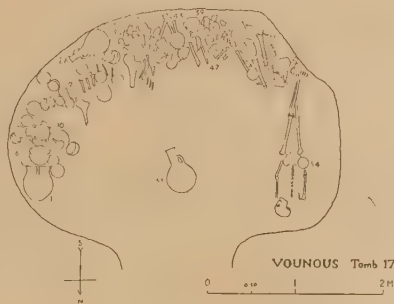
40. Ear-ring, half-cylindrical, with loop at the top. Length 0.035 m. Type I, pl. LX, 26.

39. Pin, with no distinct top. Type III, pl. LX, 17.

TOMB 17

The dromos measures 2.80 m. in length, 1.90 m. in width, and 1.50 m. in depth, and the chamber faces north. The door slab was oblong, and kept in place by a row of small stones placed along the bottom.

The chamber measures 2.90 m. north-south and 3.60 m. east-west, and is rounded, with the exception of the extreme west side, which is compressed along the north-south axis (fig. 16 *a*). Here a skeleton in good state of preservation was found *in situ* with the head to the north. The body was lying on its back and the legs were straight, but the left foot was overlapping the right one. The arms were slightly bent at the elbows, and the hands were overlapping the pelvis. A small Red Polished bowl was found in the right hand. Along the southern side of the chamber a great mass of human bones and vases was found. Among these were four more skulls. These human remains belong to burials older than the one found *in situ*, and were evidently removed from their original places and placed in a mass in order to provide room for the last burial. The greater part of the vases was found along the eastern side. About three metres east of the doorway was a large Red Polished cooking-pot (1), and south of it was a cluster of vases of various sizes. Next was found a Red Polished ring-vase (19) standing on four legs (pl. xxxiii, *c*). Between this and the heap of bones were large and small vases and many animal bones. Daggers, bronze pins, and spindle-whorls were found among the debris. A large Red Polished jug (55) with the rim to the south was found 1.60 m. south of the doorway.

Fig. 16 *a*. Tomb 17. Plan

FINDS

A. Pottery

Red Polished ware:

74. Bowl, of medium size, nearly hemispherical, two horned string-hole projections at the rim. Comparable with pl. XLVII, 6.

6. Bowl, small, deep, pointed base, four horned projections on rim. Incised. Type VII b, pls. XIII, *a*; XLVI, 9.

Bowl, small, hemispherical, string-hole projection at the rim, black inside and outside round rim. Thirty-two examples. Type VI b, pl. XLVI, 3.

25. Bowl, small, hemispherical, similar to previous. Incised. Type VI b, pl. XLVI, 3*a*.

75. Bowl, small, hemispherical, with three flat handles and tubular spout. Type VI e, comparable with pl. XLVI, 6.

- 15, 63, 67. Bowl, shallow, with projections on rim. Type X a, pl. XLVII, 6.
 24, 27. Bowl, shallow, with semicircular spout. Type X b.
 10. Bowl, small, shallow, with ledge handle and long semicircular spout below the rim. Type X c, pl. XLVII, 7.
 73. Bowl, with low foot, four horned projections at the rim. Incised. Type IX e, as on pl. XLVII, 3.
 11. Amphora, rather small, pear-shaped, with long cylindrical neck, flaring rim, angular handles from neck to shoulder. Rope ornament in relief round neck and body. Type VII a, as on pl. LI, 10.
 71. Amphora, rather small, oval, pointed base, short cylindrical neck, flaring rim, angular handles from neck to shoulder. Incised. Similar to pl. L, 7.
 76. Jug, oval, pointed base, tapering neck, flaring rim, handle from neck to shoulder, snakes in relief on neck. Type I b, pl. XLVII, 12.
 26. Jug, oval, rounded base, long cylindrical neck, flaring rim, handle from neck to shoulder. Bands in relief on the neck, and pendent from the neck-base. Type I d, comparable with pl. XLVIII, 2.
 72. Jug, oval, pointed base, wide tapering neck, handle from neck to shoulder. Type III b, pl. XLIX, 2.
 55. Jug, pear-shaped rounded base, cylindrical neck, handle from neck to shoulder. Type III c, pl. XLIX, 3.
 43. Jug, oval, rounded base, two tapering necks, flaring rims, handle from necks to shoulder. Incised. Type II c, comparable with pl. XLVIII, 10.
 34. Juglet, oval with cutaway neck, no neck-line. Type VIII e, pl. LII, 14.
 52, 53, 60, 65. Juglet, pear-shaped, tapering neck, funnel rim, handle from rim to shoulder. Incised. Type VI b, pl. LII, 7.
 58. Bottle, cylindrical, narrow cutaway neck. Incised, comparable with pl. XXXIX, c.
 45. Bottle, pear-shaped, tapering neck, funnel rim, upper part blackened. Type III, pl. LIII, 2.
 1. Cooking-pot, oval, cylindrical neck, two handles from rim to shoulder. Type II d, pl. LI, 4.
 77. Pyxis, oblong with two string-hole projections at the sides. Incised. Type II.
 39. Pyxis, with flat bottom, converging sides, flat lid. Incised. Type III.
 19. Ring vase (pl. XXXIII, c), four bowls on ring, supported by four legs. Cups perforated through base. Type II.
 47. Composite vase, with four bowls and tall flat handle; lower part missing. Comparable with pl. XXVII, b.

Black Polished ware:

9. Bottle, pear-shaped, tapering neck, pierced knob near the rim. Incised. Type VI a, pl. LIII, 12.

B. Miscellaneous

- 35, 38, 57, 61. Spindle-whorl, flat bottom and conical top. Incised. Type I, pl. LIX, 7.

C. Bronzes

50. Dagger-blade, with tang curved at the top. Type III, pl. LX, 3.
 44. Knife, with rectangular tang, one rivet. Type II a, pl. LX, 5.
 64. Knife, flat, square top, rectangular tang, one rivet. Type III b, pl. LX, 9.
 56. Scraper, of triangular shape and thin tang. Type I b, pl. LX, 13.
 48, 49. Pin, with distinct head. Type II, pl. LX, 16.
 36, 59. Pin, with no distinct top. Type III, pl. LX, 17.

TOMB 18

While clearing the dromos of Tomb 12 the separating partition between its west side and the chamber of Tomb 18 collapsed and permitted the clearing of the latter tomb. For this reason the dromos was not cleared.

The shape of the chamber is oblong, and measures 1.90 m. north-south and 3.50 m. east-west. The bulk of the tomb gifts were grouped in the eastern side of the chamber. Immediately below the doorway on the east was a large Red Polished bowl (7) with flat handle and tubular spout (pl. x, *d*), containing a small jug. Near it were human bones in a very decomposed state. Farther south-east was another large bowl (17) containing smaller vases. Other vessels of various sizes were grouped all round. Near the eastern side was a White Painted bowl (33), with flat handle and semicircular handle (fig. 17), in which a White Painted horn (32) was found (pl. II, *a*). Not far from it was another White Painted bowl (36) with semicircular spout (pl. LV, 7). In the western side of the chamber there were two large bowls (1, 2) with a human bone near them.

There is no evidence regarding the number of burials.

FINDS

*A. Pottery**Red Polished ware:*

7. Large, deep bowl (pl. x, *d*), with small flat base, converging sides, flat handle, and tubular spout. Stylized human figure(?) with horned head and snakes emerging from the sides. Diam. 0.31 m. Type II a.

1. Large, deep bowl, similar to preceding. Plain. Type II a.

2, 17. Large, deep bowl, similar to preceding; vertical loop handle. Type II b, pl. XLIV, 5.

Bowl, small, hemispherical with string-hole projection at the rim. Black inside and outside the rim. Twenty-six examples. Type VI b, pl. XLVI, 3.

13, 16, 34, 38, 41. Bowl, small, shallow, with projections on the rim. Type X a, pl. XLVII, 6.

24. Amphora, nearly globular body, wide tapering neck, knobbed handles from neck to shoulder. Type II a, similar to pl. L, 4.

5. Amphora, small, globular-body, concave neck, no neck-line, small handles at the neck-base. Type VI b, pl. LI, 7.

46. Jug, oval, pointed rounded base, tapering neck, flaring rim, handle from neck to shoulder. Snakes in relief on neck. Type I b, pl. XLVII, 12.

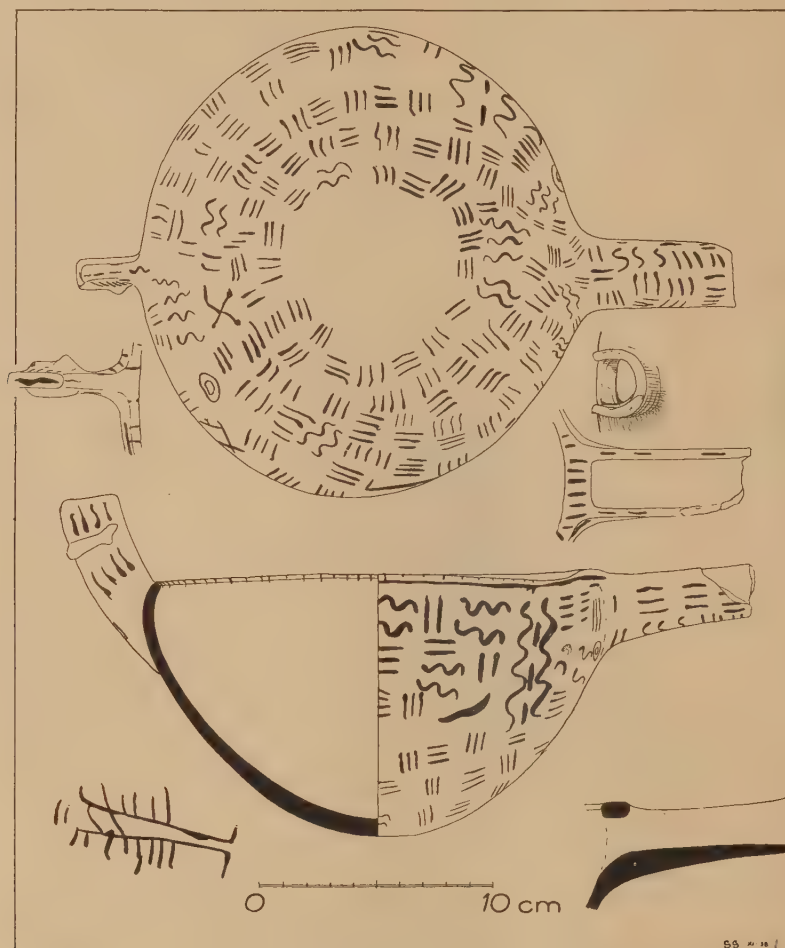


Fig. 17. White Painted bowl, T. 18:33

4. Jug, oval, pointed rounded base, wide tapering neck, flaring rim, and handle from neck to shoulder. Type III b, as pl. XLIX, 2.

6, 14. Jug, globular, wide low neck, handle from rim to shoulder. Type V b, similar to pls. XLIX, 9, and L, 2, but without the loop handle.

20. Juglet, pear-shaped, short neck, handle from rim to shoulder. Incised. Type VI b, pl. LII, 7.

White Painted ware :

33. Bowl, hemispherical, flat handle, semicircular spout at the rim. Creamy-coloured burnished slip; patterns painted in mat red; snake ornament, groups of

vertical or horizontal parallel lines, crosses, kind of centipede (?) near the rim. Inside blackened. Diam. 0.18 m. Type I b, fig. 17.

36. Bowl, nearly hemispherical, open spout, ridge below rim, string-hole projection on the rim. Burnished creamy slip, painted pattern in mat red. Bands of straight line enclosed by two wavy ones from rim to circles painted on base. Type I c, pl. LV, 7.

32. Horn (pls. II, a; XLI, 1), of excellent workmanship; burnished creamy slip, pattern in mat red; wavy lines enclosed by straight ones round the body. Length 0.13 m. Type II f.

TOMB 19

This tomb is one of the most remarkable both for the burial customs which it revealed and for the excellence of the finds.

The dromos measures 3.55 m. in length, 2 m. in width, and 1.70 m. in depth. The main chamber faces north; there are three side chambers, one facing east and two west.¹ The door slab of the main chamber was rectangular, and round it smaller stones were placed.

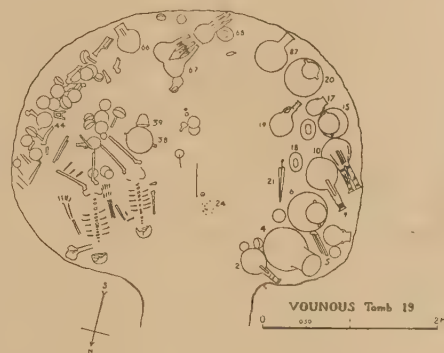


Fig. 17 a. Tomb 19. Plan

The chamber measures 3.60 m. north-south and 3.90 east-west, and is rounded; the roof had fallen in (fig. 17 a). Two skeletons were found in the eastern part of the chamber. The first was lying on its back, and the legs were directed to the second skeleton which was lying on the left. The right arm seemed to be straight, and a small bowl was in the hand. The left hand seemed to join the next skeleton's right hand. The second skeleton was lying on its back; the left leg was bent, the knee being brought out to the east, while the right one seemed to have been straight. Small vessels were found on the legs or underneath them, and animal bones were placed round the bodies and underneath them. About 0.60 m. west of the first skeleton was a necklace of twelve paste beads (24), and very near a spindle-whorl and a long bronze pin. Another bronze pin and two more spindle-whorls were found farther south. East of the skeletons, along the eastern side of the chamber were animal bones and various Red Polished bowls, among which was a White Painted bowl (44). Near the south wall a remarkable Red Polished incised composite vase (67) was found (pl. xxxii, c). The large vessels were placed along the west side of the chamber. Not far from the composite vase was a large Red Polished jug (87), then a group of large jugs and amphorae. Among them was a Red Polished incised pyxis (16), and farther north, near the side of the

¹ All the side chambers were found empty.

chamber, were a remarkable large Red Polished jug (9) with incised inscription on handle (pls. xxx, *a*; XLVIII, 2), and a double-necked jug (10) with human figures and animals in relief on the necks and a bird between the two necks (pls. xix, *d*; xx). Farther north were more large Red Polished vessels. Among these was a Red Polished composite vase (5, pl. xxvii, *a*). A bronze dagger (21) was found west of this group of vases.

Underneath the upper layer of vases a few more were found along the south-east and south-west sides of the chamber. Near the north-east side a remarkable dagger-blade (89) was found (pl. XLII, *b*).

FINDS

A. Pottery

Red Polished ware:

38. Bowl, large, deep, with flat base, converging sides, flat handle, tubular spout. Plain. Type II b, but outline as on pl. XLIV, 5.

86. Bowl, smaller, wide rounded base, diverging sides, ledge handle with vertical string-holes at the rim. Type IV, similar to pl. XLV, 6.

Bowl, small, hemispherical, string-hole projection at the rim; black inside and out side round the rim. Forty-three examples. Type VI b, pl. XLVI, 3.

32, 41, 76, 93, 101. Bowl, similar to previous, red. Incised. Type VI b, pl. XLVI, 3 *a*.

40, 49, 96, 97. Bowl, hemispherical, with semicircular spout. Type VI d.

26, 72, 95, 98, 99. Bowl, shallow, with projections on the rim. Type X a, pl. XLVII, 6.

39. Bowl, inverted conical shape, small flat base, flaring rim, string-hole projection and open spout at the rim. Type VIII b, pl. XLVI, 12.

4. Amphora, large, thick, oval, flat base, cylindrical neck, knobbed handles from neck to shoulder. Type IV b, pl. LI, 1.

6. Amphora, large, thick, oval, flat base, concave neck, handles from neck to shoulder. Type IV b.

20. Amphora, large, thick, oval, raised flat base, concave neck, handles from neck to shoulder. Type IV b, pl. L, 11.

66. Amphora, small, oval, flat base, cylindrical neck, flaring rim, angular handles from neck to shoulder. Type IV a, as on pl. L, 10.

12. Amphora, oval (base missing), cylindrical neck, flaring rim, angular handles with projections. Relief bands on neck and upper part. Type IV a, as on pl. L, 10.

17. Amphora, small, oval, rounded base, cylindrical neck, flaring rim, small handles at the neck-base. Type VII b, pl. LII, 3.

7. Amphora, rounded body and base, cylindrical neck, flaring rim, small handles at the neck-base. Incised. Type VII a, as on pl. LII, 1.

19. Jug, oval, rounded base, long cylindrical neck, knobs on the neck. Type I d, pl. XLVIII, 3.

9. Jug (pls. xxx, *a*; XLVIII, 2), oval, with rounded base, long cylindrical neck, flaring rim, and handle from neck to shoulder. Snake ornament enclosed by horizontal bands

round the upper part of the neck. Vertical snake ornament and straight stripes on the other part of the neck. On handle incised inscription (fig. 28).¹ The inscription was incised before the slip was applied. Crescents and discs on shoulder. Height 0.65. Type I d.

2. Jug, oval, rounded base, long slightly convex neck, handle from neck to shoulder. Incised ornament on neck. Type I e, similar to pl. XLVIII, 5.

35, 91. Jug, globular, tapering neck, flaring rim, handle from neck to shoulder. Incised. Type II c, similar to pl. XLVIII, 7.

10. Jug, globular (pls. XIX, d; xx), rounded base, two tapering necks, flaring rim, common handle from neck to shoulder. Two pieces connecting the necks. Relief ornament. First neck: two human figures, a man and a woman; the man places his left hand round the woman's neck, and the right on the lower part of her body. On the other side, bucranium. Second neck: horned animal on one side, bucranium on the other. Bird modelled in the round on the lower cross-piece; in front, on the handle, small cup. Bands of rope ornament pendent from the neck-base. Height 0.63 m.

65. Jug, shape similar to previous. Incised. Type II c, comparable with pl. XLVIII, 10.

87. Jug, large, globular, wide cylindrical neck, out-turned rim, handle from neck to shoulder. Type III c, pl. XLIX, 3.

102. Juglet, deep, rounded base, flaring rim, vertical handle on the rim. Type IX b, similar to pl. LI, 16.

69. Juglet, pear-shaped, tapering neck, funnel rim, handle from rim to shoulder. Incised. Type VI b, pl. LI, 7.

28. Bottle, pear-shaped, neck missing, upper part blackened. Type III, pl. LIII, 2.

16, 18, 68, 92. Pyxis, rounded, flattened or elliptical. Incised. Types II, IV.

67. Composite vase (pl. XXXII, c), three globular jugs with long narrow necks supporting a fourth with three necks with beak-shaped rim. On the joints of the three lower jugs, three juglets, two with two necks and a third with three, all with a beak-shaped rim. All these jugs communicate with one another. Rich, incised ornamentation. On the necks, bands of straight parallel lines alternating with zigzags. On the bodies, row of hatched triangles pendent from horizontal bands, base up. Height 0.83 m. Type V c.

5. Composite vase (pl. XXVII, a), four semicircular bowls, of which three are of Red Polished incised, and the fourth of the White Painted technique. Tall, thick, ladder-shaped handle, incised. Height 0.28 m. Type II a.

46, 64. Composite vase, similar to previous but of finer ware. Incised. Type II a.

14, 15. Cooking-pot with oval body, upward widening neck, handles from rim to shoulder. Type II d, pl. LI, 4.

Black Polished ware:

1. Bowl, hemispherical. Incised. Type II.

White Painted ware:

44, 85. Bowl, shallow, string-hole projection at the rim and semicircular spout below it. Creamy burnished slip, pattern in red mat. Bands of wavy lines enclosed by straight ones from rim to base. On the latter, concentric circles. Type II b, as on pl. LV, 9.

¹ See *infra*, p. 139.

103. Bowl, similar to previous; groups of short parallel strokes. Type I a, as on pl. LV, 5.

B. *Miscellaneous*

29, 30. Spindle-whorl, flat bottom and conical top. Red Polished incised ware. Type III, pl. LIX, 8.

23. Spindle-whorl, similar to previous. Black Polished ware.

24. Necklace of twelve globular blue paste beads.

C. *Bronzes*

21. Dagger-blade with midrib, tang curved at the top. Type I, pl. LX, 1.

89. Dagger-blade (pls. XLII, *b*; LX, 14), no tang, and two rivets on the sides. Three bands of lines in relief, tapering and meeting at the point. Length 0.255 m. Type IV.

88, 90. Knife, with rectangular tang, one or three rivets. Type II a, pl. LX, 5.

70. Knife, with square end. Type III a, pl. LX, 8.

22. Pin, with distinct top. Type II, pl. LX, 16.

25. Pin, with no distinct top. Type III, pl. LX, 17.

45. Tweezers. Type III, pl. LX, 23.

TOMB 20

The dromos measures 2.80 m. in length, 2 m. in width, and 1.20 m. in depth. There is a main chamber and two side chambers opening on the north-east and north-west corners. The first is a small chamber containing a few Red Polished vases, the second had been disturbed. A small Iron Age Black on Red jug was found near the doorway of this side chamber at the depth of 0.50 m. below the surface; it possibly belongs to an Iron Age burial.

The main chamber measures 2.20 m. north-south and 2.30 m. east-west, and to judge from the scanty remains of skeletons, the person buried was a child. The pottery finds were found in two groups, one along the south-east and north-east sides, and another in the north-eastern parts of the chamber. A large jug (33) was found between the two groups, almost in the centre of the chamber. Among the finds of the first group was a large Red Polished bowl (14) containing smaller ones. Another large bowl (7) was found in the second group, in which a Red Polished incised bowl (3) of conical shape (pl. XIII, *e*) and a Red Polished incised jug (2), both of very fine ware and with elaborate ornamentation, were found.

The south-east side chamber measures 0.70 m. east-west and 0.80 m. north-south. It contained a few Red Polished vases, among them a bowl (6) with horned animals and cups, modelled in the round, on the rim.

FINDS

A. Pottery

Red Polished ware :

7, 14. Bowl, large, hemispherical, ledge handle or string-hole projection, and semi-circular spout at the rim. Type V, comparable with pl. XLV, 7.

Bowl, hemispherical, string-hole projection, black inside and outside round rim. Fifteen examples. Type VI b, pl. XLVI, 3.

5, 29. Bowl, hemispherical, similar to previous ; semicircular spout at the rim. Type VI d.

21, 30. Bowl, shallower, with projection at the rim, and semicircular spout. Type X b, pl. XLVII, 5.

3. Bowl, deep (pls. XIII, e ; XLVI, 8), four projections in the shape of birds' head on the rim. Incised bands of parallel lines enclosing groups of concentric circles. Groups of dots or chevrons. Diam. 0.15 m. Type VII a.

11. Amphora, oval body, pointed base, tapering neck, flaring rim, knobbed handles from neck to shoulder. Type II a, pl. L, 5.

4. Amphora, oval, with cylindrical neck, out-turned rim, handles from neck to shoulder. Type VII a, pl. LI, 9.

2. Jug, oval, with tapering neck, funnel rim handle from neck to shoulder. Incised. Type I c.

33. Jug, globular, wide tapering neck, flaring rim, and handle from neck to shoulder. Type III b, pl. XLIX, 2.

1. Jug, oval, tapering cutaway neck, handle from rim to shoulder. Type IV a, pl. XLIX, 4.

9, 10. Juglet, pear-shaped, cylindrical neck, funnel rim, handle from neck to shoulder. Incised. Type VI b, comparable with pl. LII, 7.

8. Juglet, oval, wide tapering neck, rim broken, rising handle from rim to shoulder. Type VII a, comparable with pl. LII, 9.

B. Miscellaneous

16. Two beads, blue paste.

C. Bronzes

15. Knife, with rectangular tang, one rivet. Type II a, pl. LX, 5.

17. Pin, with no distinct head. Type III, pl. LX, 17.

FINDS FROM SIDE CHAMBER

Red Polished ware :

3. Bowl, hemispherical, with string-hole projection, black inside and outside round rim. Type VI b, pl. XLVI, 3.

2. Bowl, similar to previous ; semicircular spout. Type VI d.

6. Bowl, shallow, two animals and small cups on the rim. Diam. 0.18 m., Type X e.

4, 5. Amphora, rounded body, cylindrical neck, flaring rim, handles from neck to shoulder. 4 = Type II a, pl. L, 4 ; 5 = Type VII b, pl. LII, 2.

1. Jug, globular, tapering neck, flaring rim, handle from neck to shoulder. Type I b, pl. XLVII, 11, but of smaller size.

TOMB 21

The dromos measures 3.10 m. in length, 1.70 m. in width, and 2.10 m. in depth; three steps are cut in the back, and, besides the main chamber, there are two side ones opening on the east and west sides.¹

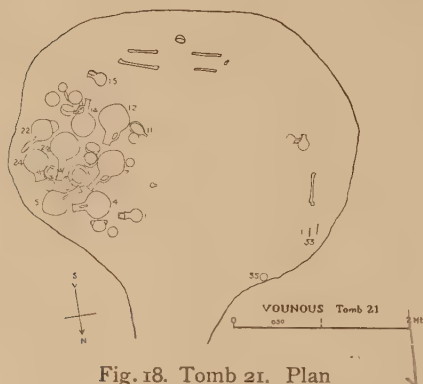


Fig. 18. Tomb 21. Plan

The chamber is rounded, and measures 3.80 m. north-south and 4 m. east-west (fig. 18). The bulk of the pottery finds was accumulated in the eastern part of the chamber, and scanty remains of two burials were found along the south side and in the north-western part. The first were the long bones of a skeleton in a lying position; a small bowl seemed to have been placed in the right hand. There were eight Red Polished vases of large size grouped more

or less together, while the smaller vessels filled the interspaces or were round them. Among these latter there was a White Painted oblong bowl (11) with long open spout (pl. XL, c). In the west part of the chamber there were only three small vases, and in the north-western part a group of two bronze pins and a bronze spiral ornament (33, pl. LX, 27). A flint flake was also among the finds.

FINDS

A. Pottery

Red Polished ware:

Bowl, small hemispherical, string-hole projection at the rim, black inside and outside round rim. Nine examples. Type VI b, pl. XLVI, 3.

10. Bowl, shape similar to previous; red. Incised. Type VI b, pl. XLVI, 3 a.

24. Amphora, oval, cylindrical neck, flaring rim, angular handles from neck to shoulder. Type IV a, pl. L, 10.

37. Amphora, pear-shaped, cylindrical neck, flat rim, handles from neck to shoulder. Type VII a, pl. LI, 10.

36. Amphora, globular, rounded base, cylindrical neck, distinct rim and small handles at the neck-base. Incised zigzag bands. Type VII b, pl. LI, 3.

31. Amphoriskos, nearly globular, wide cylindrical neck, string-hole projections at the neck-base. Incised. Comparable with type VII a, pl. LI, 1.

¹ These were found empty.

26. Jug, nearly globular, rounded base, tapering neck, funnel rim, stripes in relief on neck. Type I b, pl. XLVII, 12.

5. Jug, nearly globular, long cylindrical neck, knobbed handle from neck to shoulder. Type I c, similar to pl. XLVIII, 1.

7, 14. Jug, globular or oval with long cylindrical neck and flaring rim. Type I a, similar to pl. XLVIII, 3.

4, 12. Jug, nearly globular, base rounded, wide cylindrical neck, out-turned rim, handle from neck to shoulder. Type III c, as on pl. XLIX, 3.

39. Jug, pear-shaped, rounded base, tapering neck, funnel rim, handle from rim to shoulder. Incised. Type VI b. Similar to pl. LII, 7.

22. Jug, oval, curved neck, beak-shaped rim, handle from rim to shoulder, knobs on neck and upper part of body. Type IV b, comparable with pl. XLIX, 5.

1. Jug, globular, wide cylindrical neck, tall rectangular handle on the rim. Incised. Type V c, pl. XLIX, 7.

15. Juglet, pear-shaped body, tapering neck, funnel rim, handle from rim to shoulder. Incised. Type VI b, pl. LII, 7.

21. Juglet, globular, wide concave neck, rising handle from rim to shoulder. String-hole projection at the neck-base on the opposite side of the handle. Incised. Type VII a, pl. LII, 9.

3, 8, 25. Cooking-pot, oval or globular, low neck, two handles from rim to shoulder. Type II d, as on pl. LI, 4.

Black Polished ware :

2, 20, 29. Bowl, hemispherical, with string-hole projections at the rim. Incised. Type II.

30. Juglet, pear-shaped, tapering neck, funnel rim, handle from rim to shoulder. Incised. Type V, pl. LIII, 15.

9. Bottle, globular, cutaway neck, string-hole projection at the neck-base, two holes through lower part of the neck. Incised. Type VI b, pl. LIII, 16.

White Painted ware :

11. Bowl, oblong (pls. XL, c, LVI, 3), shallow, with string-hole projection by the rim, and horizontal open spout; the surface is covered with burnished slip and the pattern is painted in lustrous red. Band of zigzags on the base along the long axis and others running perpendicularly; other zigzag bands along rim. Diam. 0.17 m. Type IV c.

B. Miscellaneous

38. Flake, of brownish flint.

C. Bronzes

17. Knife, with rectangular tang, and three rivets. Type II a, pl. LX, 5.

32, 34. Pin, with no distinct head. Type III, pl. LX, 17.

33. Necklace, made of spiral wire. Type II, pl. LX, 27.

TOMB 22

The dromos measures 2.85 m. in length, 1.60 m. in width, and 1.90 m. in depth. It is of an oblong shape, and the doorway was removed from its original place. The stratification showed that part of the filling of the dromos had been

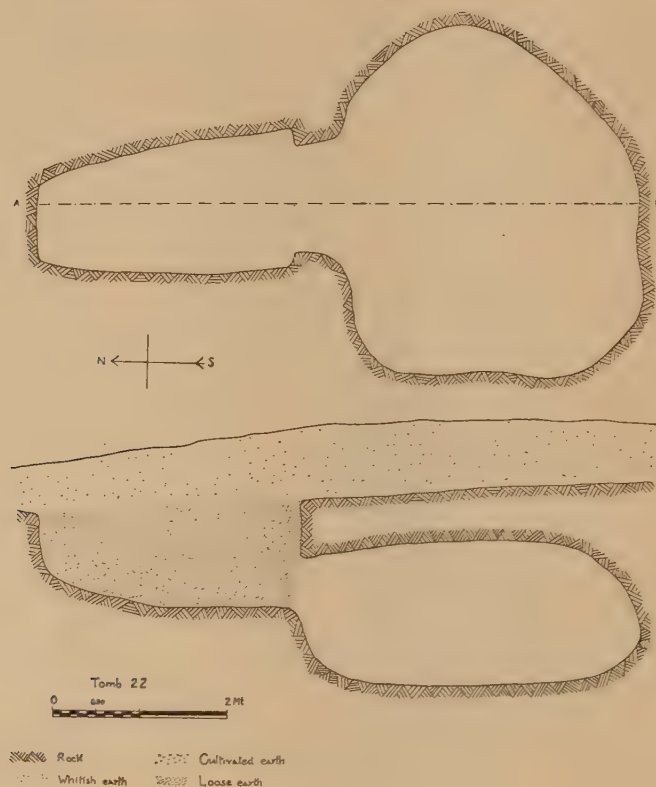


Fig. 19. Tomb 22. Plan and section

dug out to enable robbers to enter the tomb (fig. 19). The state in which the chamber was found confirmed the observation made in the dromos.

The chamber is rounded, and measures 4 m. in length and breadth. There was a layer of fallen parts, from the roof of the chamber, mixed up with earth which was washed in through the doorway after it had been disturbed by the robbers. The finds were found mostly in a broken state in this layer. All evidence, therefore, concerning the burials and the distribution of the finds is lost.

This tomb has, however, yielded some of the most important finds in the whole necropolis. Thus a model of a sacred enclosure (26) was found in fragments (pls. VII, VIII). Besides this, a nearly hemispherical bowl (25) with two birds, and in front of them small cups (pl. XIV, *d*), and a ring-vase (27) were among the finds. The last was found in a fragmentary state, and has been

reconstructed. Among the other finds is a composite vase (28, pl. xxvi, *a*) and a number of jugs, amphorae and bowls.

FINDS

A. Pottery

Red Polished ware :

Bowl, small hemispherical, string-hole projection, black inside and outside round rim. Fourteen examples. Type VI b, pl. xlvi, 3.

24, 30. Bowl, shape similar to previous. Red. Incised. Type VI b, pl. xlvi, 3 *a*.

34. Bowl, hemispherical, loop-handle on rim. Type VI g.

25. Bowl (pl. xiv, *d*), nearly hemispherical, two birds on the rim, small cup in front of each, and two horned projections. Diam. 0.20 m. Type X e.

29. Bowl, conical, small flat base, four horned projections on the rim. Incised. Type IX b, pl. xlvii, 1.

10. Amphora, globular, round base, cylindrical neck, small handles at the neck-base. Incised bands on neck and shoulder. Type VII a, pl. li, 10.

31. Jug, oval, long cylindrical neck, handle from neck to shoulder. Bands round neck and pendent from the neck-base in relief. Projection on handle and on shoulder. Type I d, comparable with pl. xlviii, 2.

2. Jug, oval, wide, low cylindrical neck, handle from rim to shoulder. Type V b, comparable with pl. l, 2.

3, 8, 9. Juglet, pear-shaped body, tapering neck, funnel rim, handle from rim to shoulder. Incised. Type VI b, pl. lii, 7.

11. Juglet, oval, wide cutaway neck, handle from rim to shoulder. Type VIII e, comparable with pl. lii, 14.

7. Bottle, pear-shaped, narrow tapering neck, string-hole below rim. Incised. Type VI a, comparable with pl. liii, 12.

27. Ring vase on four legs; on ring: juglet (*a*) composed of a lower globular jug, and a second one on top, juglet (*b*) and two cups (*c*); (*b* and *c* restored); all communicating with the ring. The ring is hollow and the legs are vertically perforated, thus allowing the liquid in the ring to flow out. Juglet (*a*), incised. Height 0.50 m., Diam. 0.23 m., comparable with pl. xxxiii, *d*, but larger.

28. Composite vase (pl. xxvi, *a*), two hemispherical bowls with flat handles and tubular spouts, tall handle with cross-piece. Type I a.

1. Cooking-pot, globular with cylindrical neck. Type II a.

Black Polished ware :

4, 5, 6. Juglet, pear-shaped or globular with tapering neck, funnel-rim, handle from rim to shoulder. Incised. Type V, pl. liii, 15.

B. Miscellaneous

26. Model of sacred enclosure, of Red Polished ware (pls. vii, viii). For description and interpretation of this object see pp. 118 ff.

38. Whetstone with hole through the side at the top. Type I, pl. lix, 6.

C. Bronzes

35, 36. Knife, tapering tang and one or two rivets; 35 = Type II a, pl. LX, 5; 36 = Type II b, pl. LX, 6.

37. Scraper, of triangular shape. Type I a, pl. LX, 12.

TOMB 23

The dromos measures 2.60 m. in length, 1.50 m. in width, and 2 m. in depth. There is a main chamber and two side ones, one on the east, and the other on the west.

The main chamber was looted and emptied of the contents in recent times. The looters first entered another neighbouring tomb (Tomb 24), then the west side chamber of Tomb 23, through which they penetrated into Tomb 23. These three tombs therefore communicated with one another at the time of the excavation. The only chamber which was saved was the eastern side chamber, which is called Tomb 23 A.

TOMB 23 A

The chamber measures 2.70 m. north-south, and 2.62 m. east-west, and is rounded. In the left-hand side the skeleton of a child was found in a recumbent position, as far as could be judged. Around the head seven paste beads (61), and on the left a bronze pin, were found. A group of small vases was lying on the right of the skull. Another group of vases was found in the north-eastern part of the chamber. The bulk of the tomb finds were grouped in the south part of the chamber. There was first a large bowl (43) which contained other smaller bowls. This was surrounded by many smaller vases, among which was a Red Polished incised bird-shaped askos (31, pl. xxxix, g). Some large Red Polished jugs were found in the remaining part of this chamber.

FINDS (Tomb 23 A)

*A. Pottery**Red Polished ware:*

43. Bowl, large, nearly hemispherical, with string-hole projection, and semicircular spout at the rim. Type V, comparable with pl. XLV, 7.

Bowl, small hemispherical, with string-hole projection at the rim, black inside and outside round rim. Twenty-one examples. Type VI b, pl. XLVI, 3.

35, 39, 48, 49. Bowl, shape similar to previous; red, incised. Type VI b, comparable with pl. XLVI, 3 a.

30, 37, 46, 50. Bowl, shape similar to previous ; semicircular spout at the rim. Type VI d, comparable with X b, pl. XLVII, 5.

20, 32, 57. Jug, oval, with pointed base, tapering neck, flaring rim, handle from neck to shoulder. Ornament in relief on the neck. Type I b, pl. XLVII, 12.

54. Jug, shape similar to previous. Incised. Type II c, as on pl. XLVIII, 7.

14. Juglet, shape similar to previous. Incised. Type II c.

Juglet, pear-shaped, tapering neck, funnel rim, handle from rim to shoulder. Incised. Ten examples. Type VI b, pl. LII, 7.

3, 8, 34. Juglet, shape similar to previous but with shorter neck. Incised. Type VI b, comparable with pl. LII, 8.

10. Juglet, with cutaway neck. Incised. Type VIII b, pl. LII, 11.

59. Bottle, pear-shaped, tapering neck, rim straight. Type II, similar to pl. LIII, 5.

Bottle, similar to previous but with funnel-rim and upper part black. Seven examples. Type III, pl. LIII, 2.

31. Bird-shaped askos, body elliptical, cylindrical foot, cutaway neck, and small basket handle. Incised, pl. XXXIX, g.

B. *Miscellaneous*

61. Necklace of seven white globular paste beads.

C. *Bronzes*

62. Pin with distinct top. Type II, pl. LX, 16.

TOMB 24

This had been looted in recent times. The only remains were a large heap of pot-sherds and a few whole vases found in the right hand side of the tomb. The dromos was not cleared, and the chamber, which measures 4.60 m. north-south and 4.30 m. east-west, is rounded. Among the whole vases found in this tomb is a large Red Polished amphora (10), a large Red Polished jug (15) with three animals in relief on the upper part (pl. XIX, c), an oblong pyxis (1) with flat lid of Red Polished incised ware, and a three-necked Red Polished incised jug (13).

FINDS

A. *Pottery*

Red Polished ware :

Bowl, small hemispherical, string-hole projection at the rim, black inside and outside round rim. Three examples. Type VI b, pl. XLVI, 3.

11, 17. Bowl, small, shape similar to previous, red. Incised. Type VI b, pl. XLVI, 3a.

12. Bowl, small shallow with four projections on the rim. Type X a, pl. XLVII, 6.

5. Bowl, shallow with horizontal loop handle on the rim. Type VI g but without spout.

10. Amphora, oval body, flat base, wide low tapering neck, out-turned rim, handles from neck to shoulder. Type IV a, pl. L, 9.

9. Amphora, globular, wide cylindrical neck, flaring rim, knobbed handles from neck to shoulder. Type VII a, pl. LI, 9.

18. Jug, oval, neck missing, bands in relief, pendent from the neck base. Type I d(?), pl. XLVIII, 2.

15. Jug, nearly globular, cylindrical neck, flaring rim, handle from neck to shoulder, double projection on handle. Snake ornament in relief on neck. Three animals in relief on the shoulders, two looking l. and one r. Height 0.51 m. Type I d, pl. XIX, c.

13. Jug, oval, base rounded, three long cylindrical necks with funnel rims. Incised. Height 0.33 m. Similar to pl. xxv, b.

16. Jug, globular, base round, wide neck (missing). Incised.

4, 8. Juglet, pear-shaped or oval, tapering neck, funnel rim, handle from neck to shoulder. Incised. Type VI b, pl. LI, 7.

2. Bottle, globular, round base, tapering neck, two string-holes below the rim. Incised. Type VI a, similar to pl. LIII, 12.

1. Pyxis, oblong, with concave sides, raised rim and flat lid made to fit the mouth. Incised.

7. Cooking-pot, globular, low neck, and two handles from rim to shoulder. Type II a.

TOMB 25

The dromos measures 3.66 m. in length, 2.60 m. in width, and 0.65 m. in depth, and is of the usual type. There is a main chamber and a side one opening on the west. The main chamber is very small, and measures 1 m. north-south and 1.30 m. east-west. It contained a group of seven small Red Polished vases found in the east part. The side chamber is smaller, and measures 1.90 north-south and 0.70 east-west. It contained two small Red Polished vases.

No human remains were found in either of them.

TOMB 26

The dromos measures 1.70 m. in length, 2 m. in width, and 1.50 m. in depth. There is a main chamber facing north and a side chamber facing east.¹ The door slab of the main chamber was oblong and fastened with many small stones placed all round. The door slab of the side chamber was a rounded block.

The main chamber measures 3.60 m. both ways, and is rounded (fig. 20). Four skulls in a very decomposed state were found in the western part of the

¹ This was found empty.

chamber. Besides a number of bones found along the south and south-west sides, the remains of a skeleton were found *in situ* near the western side. One of the four skulls seemed to belong to this burial which may be considered as the last of all.

The bulk of the pottery finds was grouped along the side of the eastern part of the chamber. First of all a row of vases of small size was found along the north-eastern side together with animals bones.

A small distance to the south-west was a group of large Red Polished vases (amphorae and jugs), while large numbers of small and large vases were placed all along the side of the chamber. A large Red Polished bowl (46) contained a large Red Polished jug (41) and other smaller vases. From fragments found in this part, two more large Red Polished bowls (107 and 108) were reconstructed.

Among the bones lying on the western part of the chamber a number of vases of small size was collected. Other finds include a Black Polished bowl with low foot (60), found near the south side of the chamber, and two bronze daggers (79, 83), found in the north-western part of the chamber. The dagger-blade (79) is interesting as pieces of cloth adhere to it (pl. XLII, c).

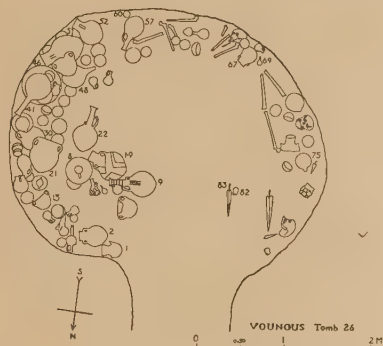


Fig. 20. Tomb 26. Plan

FINDS

A. Pottery

Red Polished ware :

107. Bowl, large deep, with small flat base, converging sides, flat handle, and tubular spout. Type II a, comparable with pl. XLIV, 5, except for the handle.

46, 108. Bowl, large wide, with small flat base, diverging sides and two ledge handles. Type III b, comparable with pl. XLV, 3.

Bowl, small, hemispherical, with string-hole projection at the rim, black inside and outside round the rim. Thirty-nine examples. Type VI b, pl. XLVI, 3.

59, 71, 72. Bowl, small, similar to previous. Incised. Type VI b, pl. XLVI, 3 a.

42, 66, 70, 93. Bowl, small, shape similar to previous but with semicircular spout. Type VI d.

32. Bowl, small, shallow, with projections on the rim. Type X a, pl. XLVII, 6.

95. Bowl, small, shallow, with semicircular spout. Type X b, pl. XLVII, 5.

19, 51, 111. Amphora, oval with small flat base, wide tapering neck, and handles from neck to shoulder. Type II a, pl. I, 4.

2, 52, 78. Amphora, nearly globular, with small flat base, cylindrical neck, flaring rim, and globular handles from neck to shoulder. Type IV a, similar to pl. I, 10, but smaller.

23, 67. Amphora, nearly globular with rounded base, low cylindrical neck, and small angular handles at the neck-base. Type VII b, pl. LII, 2.

74. Amphora (upper part only), with cylindrical neck, flaring rim, and two horizontal loop handles on the shoulder. Type II b, pl. L, 6.

1. Amphora, globular, round base, wide, upward widening neck, two handles on shoulder, and three projections on rim. Incised. Type VIII, pl. LII, 4.

48. Jug, oval, pointed base, tapering neck (rim missing), and no neck-line. Handle from neck to shoulder. Type I b, pl. XLVII, 11.

9, 22, 57, 105. Jug, oval, with pointed base, long tapering neck, and handle from neck to shoulder, second small handle at the neck-base in front. Snake ornament and straight stripes in relief on neck. Type I c, pl. XLVIII, 1. No. 22 is incised.

106. Jug, shape similar to previous. Incised. Type II c, as on pl. XLVIII, 8.

41. Jug, oval, rounded base, long cylindrical neck, and snake ornament in relief on neck. Type I d, comparable with pl. XLVIII, 2.

25. Jug, oval, low cylindrical neck, out-turned rim, and handle from rim to shoulder, string-hole projections at the neck-base opposite the handle. Type V b, similar to pl. L, 2.

24, 27. Juglet, oval with cutaway neck, handle from rim to shoulder. Type VIII b, pl. LII, 10.

43. Juglet, oval, short cutaway neck, handle from rim to shoulder. Type VIII b.

81, 82. Juglet, globular, short cylindrical neck and out-turned rim, rising handle from rim to shoulder. Type VI b, pl. LII, 8.

Juglet, pear-shaped, tapering neck, funnel rim, and handle from rim to shoulder. Incised. Ten examples. Type VI b, pl. LII, 7.

3, 20, 21, 30, 38. Cooking-pot, globular or oval, with distinct neck, handles from rim to shoulder. Type II d, pl. LI, 4.

Black Polished ware:

7, 110. Bowl, small, hemispherical. Incised. Type II.

60. Bowl, hemispherical with low spreading foot. Incised intersecting zigzag bands. Diam. 0.09 m. Type III, pl. LIII, 13.

11, 69. Bottle, globular, tapering neck, small pierced projection or simply holes at the rim. Type VI a, pl. LIII, 12.

White Painted ware:

75. Bowl, small, hemispherical, string-hole projection at the rim, and open spout. The surface is covered with pinkish burnished slip, and the patterns are applied in lustrous red paint. Band of wavy line along a straight one below the rim; bands of straight lines with wavy lines along them (pl. LVII, 20). Type I c, similar to pl. LV, 7.

B. Miscellaneous

6. Whetstone, with hole through the top. Type II, pl. LIX, 13.

76. Flake of grey flint. Type II, pl. LIX, 3.

C. *Bronzes*

- 77, 83, 100, 101. Dagger with midrib, tang curved at the top. Type III, pl. LX, 3.
 79. Dagger-blade (pl. XLII, c) with midrib, tang, cloth adhering.
 80, 99. Knife, with rectangular tang, one or three rivets. Type II a, pl. LX, 5.
 102. Knife, flat blade with square top. Type III b, pl. LX, 9.
 103. Scraper. Type I a, pl. LX, 12.

TOMB 27

The dromos measures 2.80 m. in length, 1.74 m. in width, and 1.80 m. in depth. The main chamber faces north, and a small side chamber faces east.¹ The door slab is rounded, and was kept in place by a good number of small stones placed all round.

The chamber is rounded, and measures 4.90 m. east-west (fig. 21). A skeleton was found *in situ* in the western part of the chamber (pl. iv, d); it was lying on its back with the head to the north. The legs were straight, the arms bent at the elbows, and the hands on the shoulders. A small bronze dagger (71) was found in the left hand. Along the western side were remains of several skeletons. One of these was more or less *in situ* in the northern part of this side. On the left of its skull were a dagger-blade, a stone mace-head, and a small knife. In addition, three skulls, bronze daggers, and a few vases were lying here. All these human remains belong to the earliest interments. Another skeleton, possibly belonging to the last interment, was found *in situ* in the eastern part of the chamber. It was lying on its back with the head to the north and the legs slightly directed to the east. A large jug (1) had crushed part of the skull with its base; a small vase was found on the lower part of the chest. The lower parts of the legs were buried under many vases, among which was a remarkable Red Polished jug (5). Farther south was a large amphora (17), and still farther south a group of large and small Red Polished vases.

A good number of vases was reconstructed from the sherds found in this part of the tomb. Among these were two large Red Polished bowls with flat handles (111, 123) and elaborate relief ornament, three Red Polished composite

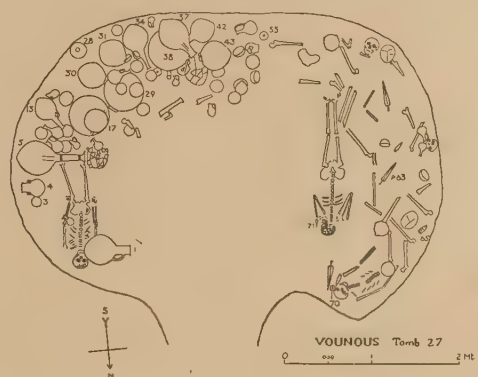


Fig. 21. Tomb 27. Plan

¹ This was found empty.

vases (114, 118, 119), and a shallow Red Polished bowl with four birds perched on the rim (113). Also two White Painted bowls, one (120) with flat handle and spout, were collected.

FINDS

*A. Pottery**Red Polished ware:*

111, 123. Bowl, large, deep, with small flat base, converging sides, flat handle, and tubular spout. Ornamentation in relief, snake ornament on handle and below rim. U-shaped ornament in relief pendent from rim, or straight stripe pendent from rim and snakes emerging from either side. Type II a, comparable with pl. XLIV, 6.

38. Bowl, large, wide, with small flat base, flat handle, and tubular spout. Impressed circles and round button in relief on handle, snake ornament below rim. Diam. 0.47 m. Type III c, pl. XLV, 5.

29, 122. Bowl, large, wide, with flat base, and four ledge handles on the rim, straight stripes enclosing snake ornament pendent from the handles. Type III b, comparable with pl. XLV, 3.

Bowl, small, hemispherical, string-hole projection at the rim, black inside and outside round rim. Forty-three examples. Type VI b, pl. XLVI, 3.

106. Bowl, shape similar to previous but with semicircular spout. Type VI d.

14, 47, 58, 125. Bowl, small, hemispherical. Incised. Type VI b, pl. XLVI, 3 a.

91. Bowl, small, shallow, with projections on rim. Type X a, pl. XLVII, 6.

66, 108. Bowl, shape similar to preceding, semicircular spout at or below the rim. Type X b.

32. Bowl, small, shallow, with projections, and vertical handle on the rim. Type VI g.

113. Bowl, small, shallow, with four birds modelled in the round on the rim. Bucranium in relief below the rim. Diam. 0.19 m. Type X e, pl. xv, a.

81. Bowl, shape similar to previous, stylized birds at the rim. Type X e.

56. Bowl, conical, with small raised base pierced horizontally, four horned projections on rim. Incised. Type VII b, pl. XLVI, 9.

112. Goblet, with diverging sides, tall tubular stem, and four projections in the shape of stylized birds on the rim. Incised. Type III, comparable with pl. LIII, 10.

17. Amphora, oval, with flat base, cylindrical neck, flaring rim, and knobbed handles from neck to shoulder. Type IV a, pl. I, 10.

4. Amphora, globular, with rounded base, cylindrical neck, and two small knobbed handles from neck to shoulder. Type VII a, pl. LI, 10.

52. Amphora, small, globular, low cylindrical neck, distinct rim, and two pierced knobs at the neck-base. Type VII b, pl. LII, 3.

23, 31, 34, 42, 92, 124. Jug, oval, with pointed base, tapering neck, funnel rim, and knobbed handle from neck to shoulder. Bands round neck, snake ornament on the neck or pendent from the neck-base. Type I b, pl. XLVII, 12.

5. Jug, oval, long tapering neck, funnel rim, and knobbed handle from neck to shoulder. Pierced projection at the neck-base on the opposite side. Two groups of three bands in relief round the top and the lower part of the neck. Just above handle,

incised band of zigzags. Bands in relief pendent from the neck-base. Type I b, but larger.

13. Jug, pear-shaped with slightly convex neck, flaring rim, handle from neck to shoulder. Type I e, pl. XLVIII, 5.

30. Jug, oval, tapering neck, handle from neck to shoulder. Incised. Type II c.

1, 6, 37, 43. Jug, oval, with short cylindrical neck, out-turned rim, and handle from neck to shoulder. Type III c, pl. XLIX, 3.

Juglet, pear-shaped, with tapering neck, funnel rim, and handle from rim to shoulder. Incised. Seven examples. Type VI b, pl. LII, 7.

26, 28, 53. Juglet, shape similar to above; handle from neck to shoulder. Type VI b.

39, 103. Juglet, shape similar to above; cutaway neck. Type VIII b, pl. LII, 10.

8, 15, 46. Juglet, oval with rounded base, short, wide cutaway neck, and handle from rim to shoulder. Type VIII e, pl. LII, 14.

40. Juglet, pear-shaped, cylindrical cutaway neck, and handle from rim to shoulder. Type VII b.

35, 55, 61. Bottle, pear-shaped, tapering neck, funnel rim, upper part blackened. Incised. Type III, pl. LIII, 2.

65. Bottle, almost cylindrical with narrow cutaway neck and pierced projection at the neck-base. Incised. Comparable with pl. xxxix, c.

114, 119. Composite vase, four cups with tall ladder-shaped handle. Incised. Type II a.

118. Composite vase, three cups and basket handle. Type I.

Black Polished ware:

3, 72. Bowl, hemispherical, string-hole projection at the rim. Incised. Type II.

117. Juglet, pear-shaped, tapering neck, funnel rim, handle from rim to shoulder. Incised. Shape comparable with pl. LII, 7.

White Painted ware:

120. Bowl, hemispherical, flat handle, and tubular spout below rim. Buff slip and pattern in mat red. Bands of straight horizontal lines enclosing wavy ones. Type I b, comparable with pl. LV, 3.

115. Bowl, shallower, flattened base, ridge along the rim, and open spout below the rim. Painted inside and out. Alternate bands of ladder pattern and wavy line enclosed by parallel lines. Type II b, similar to pl. LV, 9.

Black Slip ware:

121. Amphora, pear-shaped, raised flattened base, neck with concave sides, and handles from neck to shoulder. Shape comparable with pl. LII, 5.

B. *Miscellaneous*

110. Spindle-whorl, conical. Incised. Type I, pl. LIX, 7.

70. Mace-head, of andesite, globular. Type I, pl. LIX, 11.

C. Bronzes

- 57, 62, 68, 71. Dagger-blade with midrib, tang curved at the top. Types I-II, pl. LX, 1, 2.
 59. Knife, tapering to the top. Type I, pl. LX, 4.
 18, 69, 73, 77, 97, 109. Knife, with short or long flat rectangular tang. Types II a-II b, pl. LX, 5, 6.
 63, 102. Scraper, triangular. Types I a, b, pl. LX, 12, 13.
 19, 74. Tweezers. Types I, II, pl. LX, 20, 21.

TOMB 28

The dromos measures 2.84 m. in length, 1.72 m. in width, and 1.54 m. in depth. The main chamber faces north and a side one opens on the west.¹ The door slab of the main chamber was rounded and stood without fastenings; that of the side chamber was fastened with a few small stones.

The chamber is rounded, and measures 3.20 m. north-south, and 2.80 m. east-west (fig. 22). There was a double course of stones built along the west side of the chamber, evidently to consolidate the roof. In spite of this, the roof had collapsed owing to the soft quality of the rock.

The only human remains were the lower part of a skeleton, in a recumbent position, found in the east part of the chamber. The tomb gifts were all placed near the body. On the left of the doorway there was a large jug (33), and not far from it another one (18). The latter was surrounded by smaller vases. In the south part of the chamber there was a large bowl (32), and partly on top of it an amphora (31). In the north-western part of the chamber there was a Red Polished bowl (9) with two birds and in front of them small cups modelled in the round and placed on the rim. Not far from it was a Red Polished incised boat-shaped vessel (7, pl. LIV, 3) with small heads of animals on either side. Other smaller vessels were found in the same part of the chamber. A good number of vases was reconstructed from the fragments found in the east part of the chamber, among them large bowls and amphorae.²

FINDS

*A. Pottery**Red Polished ware:*

39. Bowl, large, deep, with flattened base, flat handle, and tubular spout, U-shaped ornament in relief pendent from the rim. Type II a, outline comparable with pl. XLIV, 8.
 37. Bowl, large, deep, with flat base and two ledge handles, straight stripes, with

¹ This was found empty.

² These do not appear on the plan.

snake ornament between, pendent from the handles. Type III b, comparable with pl. XLV, 4.

32. Bowl, large, with diverging sides, and four ledge handles at the rim. Straight stripes and snake ornament in relief pendent from the handles. Type III b, similar to pl. XLV, 3.

36. Bowl, large, hemispherical, with semicircular spout, and projection at the rim. Type V, comparable with pl. XLV, 7.

Bowl, small, hemispherical, pierced projection at the rim, black inside and outside round rim. Nineteen examples. Type VI b, pl. XLVI, 3.

35. Bowl, shape similar to preceding. Incised. Type VI b, pl. XLVI, 3 a.

19, 27. Bowl, shape similar to preceding; semicircular spout at the rim. Type VI c.

6, 12. Bowl, small, deep, with rounded base and convex sides. Four projections at the rim. Incised. Type VI c, pl. XLVI, 5.

21. Bowl, small, conical, with flat handle, and tubular spout. Type IX c, comparable with pl. XLVII, 2.

20. Bowl, small, shallow, with projections on the rim. Type X a, pl. XLVII, 6.

34. Bowl, small, shallow, with small cups and bird's head projection on the rim. Incised. Type X e.

9. Bowl, small, shallow, two birds modelled in the round and in front of them small cups, on the rim. String-hole projection at the rim. Type X e, similar to pl. XIV, c.

38. Amphora, oval, with flat base, wide tapering neck, flaring rim, and handles from neck to shoulder. Type II a, as pl. L, 4.

14, 31. Amphora, oval, with rounded base, tapering neck, and two handles on the shoulder. Type II b, as pl. L, 6.

18, 33. Jug, oval, with pointed base, rather wide, tapering neck, flaring rim, and handle from neck to shoulder. Type III b, pl. XLIX, 2.

4. Juglet, globular, with tapering neck, handle from neck to shoulder.

7. Small boat-shaped pyxis, with animals' heads on either side. Incised animals on the sides and other geometrical patterns. Pl. LIV, 3.



Fig. 22. Tomb 28. Plan

TOMB 29

The dromos measures 3.92 m. in length, 2.18 m. in width, and 1.20 m. in depth; the main chamber faces north. The door slab was rather irregular, and was kept in place by smaller stones.

The chamber measures 2.36 m. north-south and 3.52 m. east-west, and is of a rather irregular shape (fig. 23). It is rounded along the eastern and southern sides, but the north-western side projects westwards, and forms a

triangular recess. Two courses of stones were built in the east and south sides, evidently to consolidate the roof, but, in spite of this, the latter had collapsed.

Human remains were found in various parts of the chamber, but their state of preservation is too poor to allow of any accurate conclusion. It may, however, be said that the bodies were lying on their backs with straight or bent legs. There were remains of skeletons about 1 m. south-west of the doorway, others

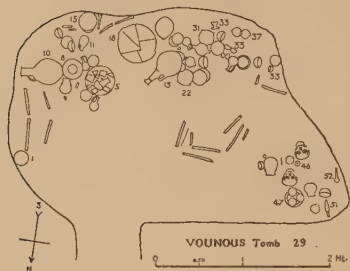


Fig. 23. Tomb 29. Plan

among the vases near the south side of the chamber, and others in the eastern part, probably the last buried. The bulk of the pottery was grouped along the south side of the chamber, although a small group was found in the triangular recess in the north-western part north-west of the skeleton; in the eastern part was a group of Red Polished vases of small and large sizes. Farther west was a large bowl (18), and near it a large jug (17). To the west was a nest of small vases. A Red Polished ring-vase (33) with five

small cups on the ring was found scattered about in many fragments (pl. xxxiii, *a*). Two Red Polished composite vases (20 and 37) were also found. Among the vases reconstructed from sherds from this part of the chamber is a Red Polished jug (54) with two cups on the shoulders (partly reconstructed), and a remarkable Red Polished bowl (55) with blackened rim and decorated with animals and snakes in relief along the upper part (pls. 1; xiii, *d*).

The group of vases found in the recess included a good number of remarkable objects. These are: a ring vase (47), terra-cotta models of a dagger with sheath (51), and of a spindle (52, pl. lvi, 6).

FINDS

A. Pottery

Red Polished ware:

18. Bowl, large, wide, with spreading sides, and two ledge handles at the rim, snakes in relief, pendent from the sides of the handles and from the rim. Type III b, comparable with pl. xlv, 4.

Bowl, small, hemispherical, with string-hole projection at the rim, black inside and outside round rim. Eighteen examples. Type VI b, pl. xlvi, 3.

42. Bowl, shape similar to preceding. Incised. Type VI b, pl. xlvi, 3 *a*.

56. Bowl, small shallow.

31. Bowl, small, deep, with four bird-shaped projections on the rim. Incised. Diam. 0.16 m. Type VII a, comparable with pl. xlvi, 8.

55. Bowl (pls. 1; xiii, *d*), small, conical, with small flat base, flat handle, and tubular spout below the rim. Black inside and outside round rim. Horned animals alternating with snakes in relief below rim. Diam. 0.19 m. Type IX d.

40. Bowl, small, with flat base, diverging sides, and string-hole projection below the rim. Black inside and outside round rim. Type VIII a, pl. XLVI, 13.

30, 38. Bowl, small, shallow, with projections on the rim. Type X a, similar to pl. XLVII, 6.

22. Bowl (pl. xv, *b*), shape similar to preceding; four small birds on the rim. Diam. 0.21 m. Type X e.

8, 9, 43. Amphora, nearly globular, cylindrical neck, out-turned rim, and handles with or without knob from neck to shoulder. Type VII a, as pl. LI, 10.

17. Jug, oval, rounded base, tapering neck, flaring rim, and knobbed handle from neck to shoulder. Stripes in relief on the neck, rope ornament pendent from the neck-base. Type I b, comparable with pl. XLVII, 12.

23, 45. Jug, similar to preceding; neck missing. Incised. Type II c.

54. Jug, fragmentary, two cups on the shoulder. Type I b, comparable with pl. XXIII, *a*.

5, 10. Jug, oval, rather wide cylindrical neck, out-turned rim, handle from neck to shoulder. Type III c, as pl. XLIX, 3.

Juglet, pear-shaped, tapering neck, funnel rim, handle from rim to shoulder. Incised. Seven examples. Type VI b, pl. LI, 7.

11. Juglet, oval, narrow cutaway neck, handle from rim to shoulder. Type VIII b, pl. LI, 10.

49. Juglet, globular, short, wide neck, flaring rim, handle (missing) from rim to shoulder. Type IX a, comparable with pl. LI, 15.

33. Ring-vase (pl. XXXIII, *a*), five hemispherical bowls on the ring with which they communicate through their bases. A second similar example (47) has only three bowls. Type I.

20, 37. Composite vase, two bowls with tall handle. Type I.

Black Polished ware:

12. Bowl, small hemispherical. Incised.

B. Miscellaneous

41, 46. Spindle-whorl, the first Red Polished and the second Black Polished. Incised. Types I, II, pl. LIX, 7.

52. Model of spindle of Red Polished ware. Incised. Length 0.20 m. Pl. LVI, 6.

51. Model of dagger and sheath of Black Polished ware. Similar to pl. LVI, 7, 8.

C. Bronzes

21. Knife-blade, short, triangular, distinct tang and one rivet. Type II a, pl. LX, 5.

44. Pin, with no distinct top. Type III, pl. LX, 17.

TOMB 30

The dromos measures 2.50 m. in length, 1.60 m. in width, and 1 m. in depth. There is a main chamber facing north, and two side chambers, both empty, one of them being on the north part of the west side.

The chamber (fig. 24) is small, and measures 2.70 m. both ways, and the sides were consolidated in the same way as in the two previous tombs. In spite of this precaution the roof had collapsed.

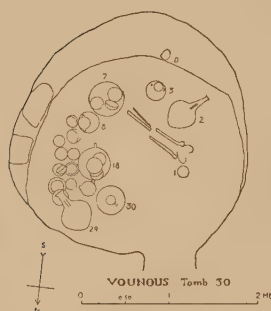


Fig. 24. Tomb 30. Plan

Only one skeleton (the upper part entirely decomposed) was found, in the south-western part of the chamber. The greater number of the tomb gifts was grouped in the eastern part of the chamber. On the left of the doorway there were two large jugs (29 and 30). Farther south was a large Red Polished bowl (18) containing smaller ones. Near the feet of the skeleton there was another large bowl (7), which again contained smaller vases. The space

between (18) and the large bowl (7) was filled with vases of various sizes. Two more vases were found on the right side of the legs, and a small bowl (1) on the left side of the pelvis.

FINDS

A. Pottery

Red Polished ware :

18. Bowl, large, wide, with slightly convex sides, small flat base, flat handle, and tubular spout below the rim; small ledge handles at the rim, and snake ornament in relief pendent from them. Type III c, comparable with pl. XLV, 5.

7. Bowl, large, deep, with convex sides, and two ledge handles at the rim; stripes and snake ornament in relief, pendent from the handles. Type III b, comparable with pl. XLV, 4.

Bowl, small, hemispherical, string-hole projection at the rim, black inside and outside round rim. Sixteen examples. Type VI b, pl. XLVI, 3.

21. Bowl, small, shape similar to preceding. Incised. Type VI b, pl. XLVI, 3 a.

6, 14, 16, 27. Bowl, small, shallow, with projections on the rim. Type X a, pl. XLVII, 6.

24, 28. Bowl, shape similar to preceding; semicircular spout at the rim. Type X b.

8. Amphora, rather globular, with raised flat base, wide neck with concave sides, and two knobbed handles from neck to shoulder. Type I, comparable with pl. I, 3.

3. Amphora, globular, with small flat base, wide tapering neck, and two handles on the shoulder. Type II b, pl. I, 6.

2. Jug, oval, with pointed base, tapering neck, flaring rim, and handle from neck to shoulder; snake band in relief round the upper part of the body. Two horned animals in relief by base of neck. Type I a, pl. XLVII, 10.

29, 30. Jug, oval, with pointed base, rather wide tapering neck, flaring rim, and handle from neck to shoulder. Type III b, pl. XLIX, 1.

TOMB 31

The dromos measures 2.70 m. in length, 1.70 m. in width, and 1.14 m. in depth. The main chamber faces north, and a side chamber faces east. Both door slabs were almost round and had small stone fastenings.

The main chamber is rounded, and measures 2.60 m. north-south, and 2.12 m. east-west. Three skeletons were found facing south-east, but all in a much decomposed and disorderly state. One of them was lying in the south-west part of the chamber, and may be considered as the earliest buried. The two others were in the foreground of the chamber. It is possible that the one nearest to the doorway was the last buried.

Their position was not quite clear as most of the long bones were found grouped together, but, considering the size of the chamber, we may suppose that the legs were flexed. The vases were grouped in the south-eastern and north-western parts of the tomb. In the first group there was a large bowl (7) which contained smaller ones. Round it were other vases of smaller size. The second group included a large jug (13) and small bowls.

The side chamber is smaller than the main one, and measures 1.40 m. east-west, and 1.20 m. north-south. There were two skeletons in a bad state of preservation; to judge from the size of the chamber their positions must have been doubled up. A number of vases (27) was found in this chamber, most of them bowls.

FINDS

A. Pottery

Red Polished ware :

7. Bowl, large, wide, with diverging sides, slightly turned-in rim, and small flat base. Two ledge handles at the rim, and vertical stripes enclosing snake ornament in relief, pendent from them. Type III b, as on pl. XLV, 3.

Bowl, small, hemispherical, with string-hole projection at the rim, black inside and outside round the rim. Fifteen examples. Type VI b, pl. XLVI, 3.

10. Bowl, shape similar to preceding; with semicircular spout at the rim. Type VI d.

11, 14. Bowl, shape similar to preceding but with horizontal loop handle on the rim. Type VI f, pl. XLVI, 7.

9. Bowl, small shallow, semicircular spout at the rim. Type X b, pl. XLVII, 5.

1, 12. Jug, oval, with pointed base, tapering neck, funnel rim, and handle from neck to shoulder. Type I b, pl. XLVII, 12.

13. Jug, globular, with rounded base, tapering neck, no neck-line, funnel rim, and handle from neck to shoulder. Type I a.

2. Bottle, pear-shaped, with tapering neck, funnel rim; upper part blackened. Incised. Type III, pl. LIII, 2.

FINDS FROM THE SIDE CHAMBER

Bowl, small, hemispherical, with string-hole projection at the rim. Black inside and outside round rim. Eighteen examples. Type VI b, pl. XLVI, 3.

24. Bowl, shape similar to previous; horizontal loop handle on the rim. Type VI g.

5, 11, 12. Bowl, small, hemispherical, semicircular spout and pierced projection at the rim. Type X b, similar to pl. XLVII, 5.

20, 22. Bowl, small, shallow, with projections on the rim. Type X b, pl. XLVII, 6.

13. Jug, oval, with pointed base, tapering neck, flaring rim, and knobbed handle from neck to shoulder. Incised. Type II b, pl. XLVIII, 7.

1, 25. Jug, globular, with rounded base, cylindrical neck and out-turned rim; similar to pl. XLIX, 3, but of small size. Type III c.

8. Bottle, pear-shaped, with tapering neck, funnel rim; upper part blackened. Incised. Type III, pl. LIII, 2.

TOMB 32

The dromos measures 3 m. in length, 1.30 m. in width, and 1.47 m. in depth (pl. v, *a*). The main chamber faces north, and the two side chambers one east and the other west. The main chamber had been looted. Of the two side chambers, the western was the more important.¹

Among the vases collected in the main chamber was a Red Polished incised bird-shaped vase (6, pl. XXXIX, *d*).

WESTERN SIDE CHAMBER² (pl. v, *b*)

The chamber is rounded, and measures 3.80 east-west, and 4.50 m. north-south. No human remains were found; a group of mostly large Red Polished vases was found in the south side; among these was a large Red Polished jug (7) with three horned animals in relief on the upper part of the body (pl. xvii, *d*). Two hemispherical bowls were found in the north part of the chamber.

FINDS

A. Pottery

Red Polished ware:

Bowl, small hemispherical, with string-hole projection at the rim, black inside and outside the rim. Eighteen examples. Type VI b, pl. XLVI, 3.

¹ The eastern side chamber was found empty.

² Called Tomb 32 A.

12. Bowl, shape as preceding ; horizontal loop handle on the rim. Type VI g.
34. Bowl, shallow, with semicircular spout. Type X b, pl. XLVII, 5.
- 8, 10. Jug, pear-shaped, with cylindrical neck, out-turned rim, and handle from neck to shoulder. Type III c, pl. XLIX, 3.
4. Juglet, pear-shaped, tapering neck, tunnel rim, and handle from rim to shoulder. Incised. Type VI b, pl. LII, 7.
14. Juglet, pear-shaped, tapering neck, out-turned rim, and handle from neck to shoulder. Type III b, similar to pl. XLIX, 2.
- 1, 7. Juglet, globular, narrow cutaway neck, handle from rim to shoulder. Type VIII b, pl. LII, 11.
5. Juglet, pear-shaped, curved cutaway neck, handle from rim to shoulder, and tripod base, string-hole projections on the neck and body. Type VIII c, outline similar to pl. LII, 12 a.
9. Juglet, globular, rather wide cutaway neck, rising handle from rim to shoulder. Type VIII e.
- 2, 11. Bottle, pear-shaped, tapering neck, funnel rim, upper part blackened. Incised. Type III, pl. LIII, 2.
6. Fantastic vase in the shape of a bird, pl. XXXIX, d.
3. Cooking-pot, oval, low slightly tapering neck, and handles from rim to shoulder. Type II c.
13. Composite vase, four cups, handle missing. Type II a.

Black Polished ware :

27. Bowl, hemispherical. Incised. Type II.

B. Miscellaneous

35. Spindle-whorl. Incised. Type III, as on pl. LIX, 8.

C. Bronzes

36. Knife, with rectangular tang. Type II c, as on pl. LX, 7.

FINDS FROM THE WESTERN SIDE CHAMBER (TOMB 32 A)

Bowl, small hemispherical, with string-hole projection at the rim, black inside and outside round rim. Seven examples. Type VI b, pl. XLVI, 3.

1, 3. Jug, oval, with pointed base, tapering neck, flaring rim, and handle from neck to shoulder. Snake ornament in relief on the neck. Type I b, pl. XLVII, 12.

7. Jug, larger (pl. XVII, d), shape similar to previous ; straight stripes and snake ornament in relief on the neck. Three horned animals, two looking r. and one looking l. in relief on the upper part of the body. Incised strokes along the horns. Height 66 m. Type I b.

6. Jug, shape similar to previous. Incised. Type II c, comparable with pl. XLVIII, 8.

5. Cooking-pot, oval, short wide neck, and two handles from rim to shoulder. Type II a.

TOMB 33

The dromos measures 1.30 m. in length, 1.50 m. in width; and 1.10 m. in depth. The main chamber faces north, and two side chambers face east and west.

The main chamber measures 3.85 m. north-south, and 3.40 m. east-west, and was found looted. The side chambers contained nothing.

Among the types found in the main chamber the following are worth notice.

FINDS

A. Pottery

Red Polished ware :

Bowl, small hemispherical, with string-hole projection by the rim, black inside and outside round rim. Twenty-one examples. Type VI b, pl. XLVI, 3.

6, 8. Bowl, small, shape similar to preceding. Incised, with small loop handle. Type VI b, pl. XLVI, 3 a.

24. Bowl, small, shallow. Type X a, pl. XLVII, 6.

15. Bowl, small hemispherical, loop handle and tubular spout. Type VI g, pl. XLVI, 7 a.

29. Bowl, conical, with flat base perforated horizontally, two small cups and horned projections on the rim. Type VII c, as on pl. XLVI, 10.

2. Bowl, conical with raised flat base, perforated horizontally. Type IX e, as pl. XLVII, 3.

11. Bowl, with convex sides, small raised flat base, and two horned animals on the rim. Incised, fragmentary. Type VII c, pl. XLVII, 6 a.

61. Jug, oval, with rounded base, cylindrical neck, and handle from neck to shoulder. Type I d, comparable with pl. XLVIII, 3.

1. Jug, pear-shaped, tapering neck but with slightly convex sides, knobbed handle from neck to shoulder; knob at the neck-base on the opposite side. Type I e, pl. XLVIII, 5.

Juglet, pear-shaped, tapering neck, funnel rim, handle from rim to shoulder. Incised. Twelve examples. Type VI b, pl. LI, 7.

41. Juglet, shape similar to preceding; low neck. Incised. Type VI b, pl. LI, 8.

16. Juglet, globular, cylindrical neck, pinched rim, and handle from rim to shoulder.

12, 57, 58. Juglet, pear-shaped with cutaway neck. Type VIII b, pl. LI, 10.

25. Cooking-pot, globular, and slightly pointed base. Type II d, pl. LI, 4.

48. Cooking-pot, similar to preceding but with tripod base. Type II c.

18. Ring vase, fragmentary, with solid ring and leg, small cup on the ring. Incised. Type III.

7. Composite vase, fragmentary, two cups; belongs to the type with four cups and tall handle. Type II a.

Black Polished ware :

3, 5. Bowl, hemispherical, with string-hole projection or loop handle by the rim. Incised. Type II.

B. Miscellaneous

- 31, 32, 56. Spindle-whorls, conical, two incised and one plain. Red Polished ware. Type I, pl. LIX, 7.
 20, 21. Animal, horned, modelled in the round and belonging to a vase. Red Polished ware, pl. LX, 31, 32.
 83. Whetstone, oblong, rectangular, with hole through top. Type I, pl. LIX, 5.
 84. Necklace of twelve greenish paste beads.

C. Bronzes

- 64, 65, 66, 67. Dagger-blade with midrib, tang curved at the top. Types II, III, pl. LX, 2, 3.
 68-74. Knife, with or without distinct tang or rivets. Types I and II a, pl. LX, 4, 5.
 75-81. Pins, with or without distinct top. Types II-III, pl. LX, 16, 17.
 82. Tweezers. Type III, pl. LX, 22.

TOMB 34

The dromos, which is of the usual shape, measures 2.90 m. in length, 1.80 m. in width, and 1.72 m. in depth. The main chamber was found looted, and measured 2.40 m. north-south, and 4 m. east-west. All the pottery was found broken and scattered on the floor.

FINDS

*A. Pottery**Red Polished ware :*

15. Bowl, large, wide with flat base, diverging sides, flat handle, and tubular spout ; two ledge handles at the rim. Ornament in relief round rim and pendent from the handles. Type III c, pl. XLV, 5.
 Bowl, small, hemispherical, with string-hole projection at the rim, black inside and outside round rim. Seventeen examples. Type VI b, pl. XLVI, 3.
 22. Bowl, small, similar to preceding. Incised. Type VI b, pl. XLVI, 3 a.
 12, 17. Bowl, small, shallow. Type X a, as on pl. XLVII, 5.
 38. Bowl, shape similar to previous ; open spout at the rim. Type X b.
 39. Amphora, globular, with cylindrical neck, out-turned rim, two handles from neck to shoulder. Idol on each handle (one missing). Height 0.26 m. Type VII a, pl. I, 1.
 49. Jug (pls. xxiii, d ; xxiv, b ; xxii, a), oval, with pointed base, two necks tapering upwards, flaring rim and knobbed handle from the neck to shoulder, loop handle on the shoulder on the opposite side. Incised ornamentation : bands of straight and zigzag lines round the necks. On the shoulder, two stags facing a large group of concentric circles (pl. xxiv, b). Other circular groups of concentric circles and connecting bands of geometrical ornamentation. Below, a large band of zigzag parallel lines. On one of the

points is a pattern which may be interpreted as the upper part of a human figure with the arms akimbo (pl. xxii, *a*). Below is a band composed of groups of concentric circles and connecting bands of geometric ornament. Height 0.61 m. Type II d.

16. Jug, pear-shaped with long cylindrical neck, rim turned outwards, knobbed handle from neck to shoulder. Knobs on the shoulder. Type I d, pl. xlviii, 4.

32, 35. Jug, pear-shaped, with rather wide cylindrical neck, rim turned outwards, handle from neck to shoulder. Type III c, pl. xlix, 3.

8, 42. Jug, globular, with wide neck, handle from rim to shoulder. One plain and one incised. Type V b, pl. I, 2.

3, 10, 21, 48. Juglet, pear-shaped, tapering neck, funnel rim, handle from rim to shoulder. Type VI b, pl. lii, 7.

4. Juglet, similar to preceding. Incised.

24. Juglet, pear-shaped, with cylindrical neck. Type VI b.

29. Juglet, similar to preceding; tubular spout. Type VIII d, comparable with pl. lii, 13.

34. Cooking-pot, globular, with low neck, and handles from rim to shoulder. Type I c.

43. Askos, of elliptical shape, two curved cutaway necks, foot (partly broken off) and probably basket handle (missing). Incised. Pl. xxxix, *h*.

Black Polished ware :

36. Bowl, hemispherical. Incised. Type II.

45. Bottle, pear-shaped, tapering neck, small projection at the rim. Incised. Type VI a, pl. liii, 12.

6. Bottle, pear-shaped, short cutaway neck. Incised.

41. Amphoriskos, globular, with cylindrical neck. Incised. Similar to pl. lii, 1.

B. Miscellaneous

46. Idol of Red Polished ware, flat, fragmentary. Incised.

C. Bronzes

25. Knife with midrib, tang and two rivets. Type II c, pl. lx, 7.

5, 28, 44. Pin, with or without distinct top. Types II, III, pl. lx, 16, 17.

TOMB 35

The dromos measures 2.12 m. in length, 1.65 m. in width, and 0.65 m. in depth. The main chamber faces north; two side ones, A and B, face one east and the other south. The door slab of the main chamber was oblong, and fastened with small stones placed mostly on the right.

The chamber (fig. 25, pl. v, *c*) is rounded, and measures 2 m. north-south, and 2.40 m. east-west; the roof had collapsed. There were two skeletons, one in the eastern and the other in the western part of the chamber, the second on

the left of the doorway. Both were lying under vases, and most of the bones were in a decomposed state. They seem to have been in the recumbent position, but with legs flexed. The bulk of the vases was placed in the eastern part of the chamber. There were three vases of large size on the upper part of the eastern skeleton, then followed groups of large and small vases, mostly large jugs and bowls. On the upper part of the western skeleton was a large bowl containing smaller ones.

FINDS

A. Pottery

Red Polished ware :

15. Large, deep bowl, with small flat base, converging sides, horizontal loop handle, and tubular spout at the middle of the body. Type I a, pl. XLIV, 1.

27. Bowl, large, wide, with flat base, converging sides, two ledge handles at the rim. Type III a, pl. XLV, 1.

14, 22, 24, 25. Bowl, small, hemispherical, with horn-shaped handle, pierced horizontally at the base, below rim. Black inside and outside round rim or entirely red. Type VI a, pl. XLVI, 2.

Bowl, shape as preceding; string-hole projection below handle. Seven examples. Type VI b, pl. XLVI, 3.

2. Bowl, shape as preceding but with open spout at the rim. Type VI d.

18, 31, 37. Bowl, shallow, with projection at the rim. Type X a, pl. XLVII, 6.

6. Bowl, similar to preceding but with open spout. Type X b.

32, 34. Amphora, oval, with slightly raised or plain flat base, concave neck, knobbed handles from neck to shoulder. Type I, pl. I, 3.

17. Amphora, globular, tapering to the base, low concave neck, and handles from neck to shoulder. Type VI a, pl. LI, 6.

23. Jug, oval, with flat base, rather wide, tapering neck, flaring rim, and handle from neck to shoulder. Type III b, pl. XLIX, 1.

13, 29. Jug, shape similar to preceding but with still smaller or rounded base. Type III b.

20. Jug, oval, with flat base, tapering cutaway neck and no neck-line, handle from rim to shoulder. Type IV a, pl. XLIX, 4.

35. Jug, oval, with pointed base, rather wide tapering neck, no neck-line, flaring rim, and handle from neck to shoulder. Type III a, pl. XLVIII, 12.

1, 19, 26, 33, 36. Cooking-pot, oval with small flat base, low neck, with concave sides, handles from rim to shoulder. Type I a, pl. LI, 2.

38. Juglet, conical, with wide flat base, cylindrical neck, funnel rim, and handle from rim to shoulder. Type VI a, pl. LII, 6.

Black Polished ware :

11. Amphoriskos, with globular body, long, wide cylindrical neck, flaring rim. Incised. Type comparable with pl. LI, 5.

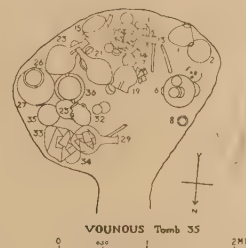


Fig. 25. Tomb 35. Plan

THE EXCAVATIONS AT

FINDS FROM SIDE CHAMBER A

A. Pottery

Red Polished ware :

8. Bowl, small hemispherical, with horn-shaped handle; black inside and outside round rim. Type VI a, pl. XLVI, 2.

5, 6, 7, II. Bowl similar to preceding but with knob near the rim. Type VI b, pl. XLVI, 3.

13. Jug, oval, with tapering neck, flaring rim, handle from neck to shoulder. Incised. Type II c, pl. XLVIII, 8, but smaller.

1, 4, 9. Juglet, pear-shaped with tapering neck, funnel-rim, handle from rim to shoulder. Incised. Type VI b, pl. LII, 7.

10. Juglet, pear-shaped, with cutaway neck and tubular spout in front. Type VIII d, pl. LII, 13.

2. Juglet, globular, short cylindrical neck, flaring rim, handle from rim to shoulder. Type VI b, pl. LII, 8.

3. Juglet, pear-shaped, with cutaway neck, handle from rim to shoulder. Type VIII b, pl. LII, 11.

FINDS FROM SIDE CHAMBER B

1. Bowl, small, shallow, with projections on the rim. Type X a, pl. XLVII, 6.

2. Juglet, pear-shaped, tapering neck, funnel-rim, handle from rim to shoulder. Incised. Type VI b, pl. LII, 7.

TOMB 36

The dromos measures 2.30 m. in length, 2.10 m. in width, and 1.04 m. in depth, and is roughly rectangular. There is a main chamber facing north and two side chambers, one facing east and the other west. Of these the second was found empty. The door-slabs were roughly rounded, and small stones, placed on the sides, kept them in place.

The chamber is rounded, and measures 3 m. north-south and 3.60 m. east-west, and the roof had fallen in. On the foreground of the chamber, about 1 m. from the doorway, there was a large heap of human bones (pl. v, *d*), grouped anyhow. These bones are evidently the remains of some of the several burials made in the tomb, but it is difficult to find any stratigraphical sequence relating them to the other human remains found in the western part of the chamber, as even these were in no order (see below). Human remains have also been found in the eastern part of the chamber.

About 1.30 m. east of the doorway were a Red Polished jug (4) and two skulls, one below the rim, and the other below the lower part. Immediately to the south-east was a remarkable large Red Polished bowl (10), decorated with two pairs of bulls' heads, from the necks of which hang snakes, all represented in relief

(pl. xi, *e*). Inside this large bowl were bones of oxen and a Red Polished ring vase (12, pl. xxxiii, *d*). Immediately to the south was another human skull, and on the east was a group of vases mostly broken. Among these was a remarkable Red Polished bowl (22) of elongated shape, with snakes and horned animals represented in relief below the rim (pl. xiii, *c*). Not far away was a large Red Polished bowl (28), which contained smaller bowls, and a large group of vases,

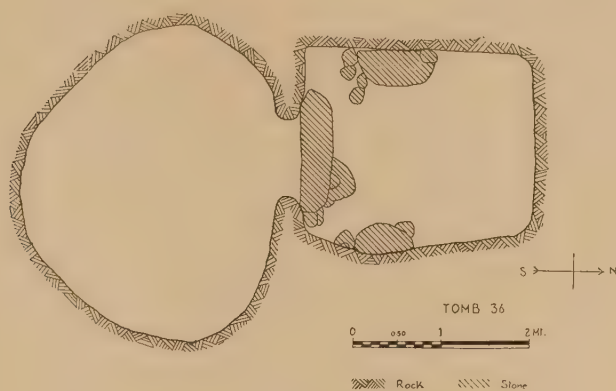


Fig. 26. Tomb 36. Plan

of which a great part was broken. Near the south-east side of the chamber was a Red Polished goblet (47), with long stem, in which were animals' bones, and farther south two large Red Polished bowls (57, 58), one inside the other. The latter contained part of a human arm. Not far away was a unique large Red Polished bowl (63), with elaborate incised ornamentation (pl. xii, *c*), and inside it was a large jug in a very broken state. At a small distance to the west was a large Red Polished bowl (76), which contained smaller bowls and a human arm. Then followed a group of large Red Polished vases, all broken, and near a large Red Polished jug was a skull. A little distance to the north-east was another skull, which was lying on part of a Red Polished incised model of a bull's horn (96, pl. xxxviii, *a*). Another similar model of a horn (109) was found at a small distance to the north, where a group of large amphorae and jugs was found (pl. v, *e*). West of these was a skull belonging to a skeleton, of which the body was uncovered after the vases and debris over it were removed. In the north-western part of the chamber a group of three skulls was found.

When all the upper layer vases and bones were removed a second layer lying on the rock was cleared. In the east part of the chamber a large part of the skeleton of an ox (pl. vi, *a*) and a number of bowls were found among the bones.

Among the vases found lying on the bones was a remarkable Red Polished bowl (142). On the rim are two birds and a horned animal's head modelled in

the round. On the upper part of the body are snakes represented in relief (pl. xiv, *b*). In the west part of the chamber and corresponding to the lower layer two skeletons were cleared, one of which was already appearing in the upper layer (pl. v, *e, f*). One of these skeletons seemed to have been buried in a doubled-up position, although the state of the bones was such that no definite conclusion could be drawn. The neighbouring skeleton was lying on its back, the skull lying to the north and facing east. The legs were badly preserved, but they were probably flexed.

It is interesting to remark that no skeleton belonging to the upper layer was found *in situ*, and that on the contrary the bones were found in great disorder, mostly in the foreground of the chamber, while others were scattered among the pottery finds. Of the two skeletons found in the west part of the chamber and belonging to the second layer, only one seems to have been found *in situ*. This skeleton, although found under many vases and actually belonging to the lower layer, should be considered as the last buried. In fact the skull appeared in the upper layer.

In conclusion, this tomb, besides the exceptional number of burials (9 in all), presented several interesting features. Thus it revealed sacrifices of animals such as have been already noticed in other tombs and especially in Tomb 13, and it brought to light a great number of unique examples of pottery.

FINDS

A. Pottery

Red Polished ware:

51, 76. Bowl, large, deep, with small flat base, convex sides, flat handle (missing), and tubular spout; small ledge-handles at the rim, and snake-ornament in relief pendent from them. Type II a, as on pl. XLIV, 4.

10. Bowl (pl. xi, *e*), large, with flat base, diverging sides, bent-in rim, and four ledge-handles, two long and two short. Below the two long ones and pendent from them are two pairs of bulls' heads in high relief, from the necks of which hang snakes in relief. Between the two heads is a vertical stripe. From the smaller ledge handles pendent snakes in relief. Diam. 0.48 m. Type III b.

63. Bowl, large, wide, shape similar to preceding but with flat handle (missing), and tubular spout. Incised ornamentation: large band of wavy parallel lines and straight line running across; below another similar band but without the straight line. Diam., 0.36 m. Type II a, pl. xii, *c*.

16, 28, 58, 80. Bowl, large, wide, with flat base, ledge-handles, and, on some examples, straight stripes or snake-ornament in relief pendent from the handles. Type III b, comparable with pl. XLV, 3.

61, 156. Bowl, large, wide, similar to preceding. Plain. Type III b.

57. Bowl, large, deep, with tubular spout and vertical loop-handle. Type II b, as on pl. XLIV, 5.

Bowl, small, hemispherical, with string-hole projection by the rim, black inside and outside round rim. Fifty-two examples. Type VI b, pl. XLVI, 3.

Bowl, shape similar to preceding. Incised. Seven examples. Type VI b, as on pl. XLVI, 3 *a*.

55. Bowl, small, hemispherical, with flat handle and tubular spout. Incised. Type VI e, pl. XLVI, 6.

27, 75, 117, 126. Bowl, hemispherical, with open spout. Type VI d.

147. Bowl, small, deep, with rounded base, and four horned projections at the rim. Type VI c, as on pl. XLVI, 5.

22. Bowl (pl. XIII, *c*), conical, with small flat base, perforated horizontally, flat handle, and tubular spout. Black inside and outside round rim, small cups and projections on the rim. Horned animals and snakes in relief below the rim. Diam. 0.15 m. Type IX d, pl. XLVII, 4.

142. Bowl (pls. XIV, *b*; XLVI, 14), oblong, with small flat base, flaring rim, and small open spout. Two birds looking outwards and a bull's head modelled in the round mounted on the rim. Two snakes in relief below the spout. Black inside and outside round the rim. Diam. 0.12 m. Type VIII b.

49, 71, 105, 149. Bowl, small, shallow, with or without projections on the rim. Type X a, pl. XLVII, 6.

47. Goblet, with long cylindrical stem, spreading base. Small projections on the rim. Height 0.21 m. Diam. 0.14 m. Type I, pl. LIII, 7.

3, 67. Amphora, globular, with round base, cylindrical neck, out-turned rim, and small handles from neck to shoulder. Type VII a, pl. LI, 9, 10.

64, 114. Amphora, oval, with flattened base, low concave neck, and small handles at the neck-base. Type VI b, pl. LI, 7.

4, 9, 18, 29, 38, 66, 70, 83, 100, 106. Jug, oval, with tapering neck, funnel-rim, knobbed handle from neck to shoulder. Type I b, as on pl. XLVII, 12.

94. Jug, oval (body missing), with cylindrical neck. Type I d, similar to pl. XLVIII, 2.

48. Jug, oval, with rounded base, long cylindrical neck, handle from neck to shoulder. Type I a, similar to pl. XLVIII, 3.

37. Jug, shape similar to preceding, three animals in relief, two looking left and two right. Height 0.59 m. Type I b.

19, 21. Jug, oval, with pointed base, tapering neck, flaring rim, handle from neck to shoulder. Incised. Type II b, shape similar to pl. XLVIII, 7.

116. Jug, oval, with rather wide cylindrical neck, out-turned rim, and handle from neck to shoulder. Type III c, pl. XLIX, 3.

33. Jug, pear-shaped, two cutaway necks, handle from neck to shoulder. Incised. Type IV c, pl. XLIX, 5 *a*.

Juglet, pear-shaped, tapering neck, funnel-rim, handle from rim to shoulder. Incised. Six examples. Type VI b, pl. LII, 7.

101. Juglet, similar to preceding, but with cutaway neck. Type VIII b, pl. LII, 11.

77. Juglet, oval, with long, curved, cutaway neck and handle from rim to shoulder. Type VIII c, pl. LII, 12 *a*.

93. Juglet, similar to previous, but shorter neck. Type VII b.

31. Juglet, globular, with flaring rim, handle from rim to shoulder. Type IX a, similar to pl. LII, 15.

Bottle, pear-shaped, with tapering neck, funnel-rim, upper part black. Incised. Three examples. Type III, pl. LIII, 2.

96, 109. Horn (pl. xxxviii, a), of Red Polished ware, with blackened point, apparently copying bulls' horns. One is more curved than the other. Holes near the base. Incised. Length 0.30 m.

12. Ring-vase (pl. xxxiii, d): three cups and a juglet on the ring, which is supported by four legs. Diam. 0.15 m. Type II.

2, 24, 110. Cooking-pot, globular, with rounded base, low concave neck, and handles from rim to shoulder. Type I c.

B. *Miscellaneous*

121. Spindle-whorl, of Red Polished ware. Type I, pl. LIX, 7.

120. Spindle-whorl, of bone, flat type with slightly curved top. Pl. LIX, 1.

C. *Bronzes*

112. Dagger-blade, with midrib and tang curved at the top. Type I, pl. LX, 1.

7. Pin, with distinct top. Type II, pl. LX, 16.

144. Needle?, of long, rounded type. Type I, pl. LX, 18.

97. Needle?, of long, flat type. Type II, pl. LX, 19.

FINDS FROM THE WESTERN SIDE CHAMBER

A. *Pottery*

Red Polished ware:

1. Bowl, small, hemispherical with string-hole projection by the rim; black inside and outside round rim. Type VI b, pl. XLVI, 3.

3, 4, 5, 6. Juglet, pear-shaped with tapering neck, funnel-rim, handle from rim to shoulder; 4, 6: incised; 3, 5: plain. Type VI b, pl. LII, 7.

2. Bottle, pear-shaped, tapering neck, funnel-rim; upper part blackened. Type III, pl. LIII, 2.

TOMB 37

The dromos measures 3.23 m. in length, 1.70 m. in width, and 1.50 m. in depth. The chamber faces north and is of very large dimensions (6 m. north-south and 6.10 m. east-west). Its shape is rather rounded, and along its western side there is a bench measuring approximately 0.50 m.—1 m. in width; it is 0.25 m. above the floor of the chamber.

This tomb was found looted, and the great masses of broken pottery were spread on the eastern part of the chamber. Nevertheless a large quantity of unbroken vases was found among the fragments.

FINDS

A. Pottery

Red Polished ware:

Bowl, small, hemispherical, with string-hole projection at the rim, black inside and outside round the rim. Twenty-two examples. Type VI b, pl. XLVI, 3.

17, 47, 52, 70, 73, 78, 119. Bowls, as previous. Incised. Type VI b, pl. XLVI, 3 *a*.

88. Bowl, hemispherical, with four horned projections at the rim. Incised. Type VI c, similar to pl. XLVI, 4. This originally belonged to a goblet with stem; later it was detached, the traces of attachment were painted over, and it was used as a bowl.

24. Bowl, hemispherical, with rectangular projections on the rim and other horned ones by it. Incised. Type VI c, comparable with pl. XLVI, 5.

112. Bowl, hemispherical with horizontal loop-handle. Type VI g, similar to pl. XLVI, 7 *a*, but without the spout.

18, 22, 72, 91, 104. Amphora, small, globular, with cylindrical neck, flat handles from neck to shoulder. Type VII b, as on pl. LII, 2.

23. Amphora, small, globular, with long cylindrical neck, rim turned outwards, small handles at the neck-base. Type VII a, as on pl. LI, 10.

113. Amphoriskos, pear-shaped, cylindrical neck, rim turned outwards, pierced knobs at the neck-base. Incised. Type VII a, comparable with pl. LII, 1.

30, 38, 54, 58. Jug, oval, with pointed base, tapering neck, funnel-rim, handle from neck to shoulder. Relief ornamentation on neck. Type I b, pl. XLVII, 12.

14. Jug, shape similar to preceding, two stags in relief on the upper part, one looking right and the other, partly missing, looking left. Type I b.

51. Jug, shape similar to preceding, but with neck slightly convex. Below the rim the eyes, nose, mouth (two incisions), and pierced ears of a human face are marked. Type I c, as on pl. XLVIII, 5.

9. (Pl. XVIII, *a*, *b*.) Neck and part of the shoulder of jug, of similar shape to preceding; bands in relief round neck; on shoulder: group of two oxen ploughing; of the plough only the yoke was preserved, the remainder and the figure following the oxen were reconstructed after the model of the ploughing scene (pls. ix; x, *a*). Type I b.

83. Jug (pl. XIX, *e*), nearly globular, with cylindrical neck. Bands and snake ornament on the neck, four juglets on the upper part of the body. Relief band, connecting the four juglets. Type I d.

7, 103. Jug, oval, with oval body, round base, and wide cylindrical neck with rim turned outwards, fragmentary. Type III c, pl. XLIX, 3.

65, 89. Jug, pear-shaped, with narrow cutaway neck, handle from neck to shoulder, projections on neck. Type VIII b, pl. LII, 10.

2, 3, 5, 8, 37, 44, 45, 50, 55, 56, 59, 63, 68, 81, 82, 85, 86, 90. Juglet, pear-shaped, with tapering neck, funnel-rim, handle from rim or neck to shoulder. Incised. Type VI b, pl. LII, 7.

92. Juglet, shape similar to preceding. Plain. Type VI b.

13, 94, 99, 109, 111. Juglet, shape similar to preceding, but with shorter neck. Type VI b, comparable with pl. LII, 8.

60, 64. Juglet, similar to preceding, but with cutaway neck and rising handle from rim to shoulder. Plain. Type VII a, comparable with pl. LII, 9, except for the neck.

114. Juglet (pl. xxv, *e, f*), pear-shaped, with three narrow cylindrical necks, with funnel-rims, and handle splitting into two to join two of the necks. The upper part of a small figure grinding with a saddle-quern is placed where the rims of the three necks join. Incised. Type II c.

16, 33. Juglet, globular, wide out-turned rim, and vertical loop-handle. Plain. Type IX a, comparable with pl. LII, 15.

115. Bottle, oblong with flat base, cutaway neck. Incised. Similar to pl. xxxix, *c*.

118. Pyxis, of elliptical shape. Incised. Pierced projection by the mouth. Type III.

84. Pyxis (pl. xxxv, *a*), rather globular, oval mouth, and flat rectangular lid. On either side of the mouth, on the narrow sides, pairs of birds modelled in the round sitting back to back. On the lid, two human figures, apparently a man and a woman standing side by side and possibly joining hands. Holes along the mouth and the edge of the lid for fastening the latter. Incised. Type IV.

93. Pyxis, similar to preceding; the birds face each other. Lid missing. Incised. Type IV, pl. xxxv, *b*.

Black Polished ware:

116. Bowl, deep, barrel-shaped, with three projections on the lower part. Incised. Type I, pl. LIII, 11.

26, 53, 67. Bowl, small, hemispherical, with string-hole projections at the rim. Incised.

80. Juglet, globular, narrow tapering neck, funnel-rim, handle from rim to shoulder. Incised. Type similar to pl. LIII, 15.

120-123. Fragments from different bottles or juglets.

White Painted ware:

98. Bowl, rather shallow, with angular horizontal loop-handle at the rim. Wavy bands from rim to base, outside and inside. Type IV b, pl. LVI, 3 *a*.

117. Bowl, rather deep, with distinct flat base, distinct rim, and vertical loop-handle from rim to body. Chain of hatched lozenges and triangles round the body. Cross on base. Type IV a, pl. LV, 12.

96. Amphoriskos, globular, with wide cylindrical neck, plain rim, and two small handles at the neck-base, cross-hatching on the neck, chequer board and hatching on the body. Type V, pl. LVI, 2.

77. Juglet, pear-shaped, cutaway neck, handle from rim to shoulder. Bands round neck, bands of hatching on body. Type VIII b, shape comparable with pl. LII, 10.

B. *Miscellaneous*

62, 101. Spindle-whorls of Red Polished ware, of conical shape. Type I, pl. LIX, 7.

29, 31. Spindle-whorls of Red Polished ware, with convex sides. Incised. Type V, pl. LIX, 10.

102. Spindle-whorl of limestone, round and flat. Pl. LIX, 2.

100. Stag's head of Black Polished ware. Incised. Pl. xxxix, *e*.

61. Loomweight of coarse clay, pl. LIX, 15.

C. *Bronzes*

4. Axe-head, of flat triangular shape, with spreading cutting-edge. Pl. LX, 11.

49. Tweezers. Type I, pl. LX, 20.

66, 107, 108. Pin, with no distinct top. Type III, pl. LX, 17.

TOMB 38

The orientation of the dromos is different: its axis is almost east-west. In the east side were two steps (pl. iv, *c*). There is a main chamber facing east, and a side one facing south. The dromos measures 3.22 m. in length, 1.60 m. in width, and 1.85 m. in depth.

The main chamber measures 3.40 m. in length, 1.60 m. in width, and 1.85 m. in depth, and had been looted. The bulk of the vases was found mostly in a broken state in the south part. However, there was a certain number of unbroken vases, among them a Red Polished composite vase (39) formed of three jugs supporting a fourth (like pl. xxxi, *d*).

The side chamber, which was untouched, was oblong, and contained a number of vases in its western part. A few bones, apparently of a child, were also found.

FINDS

A. *Pottery*

Red Polished ware:

Bowl, small, hemispherical, with string-hole projection at the rim, black inside and outside round rim. Nineteen examples. Type VI b, pl. XLVI, 3.

14. Bowl, red, shape similar to preceding, with tubular spout below the rim. Type VI g, pl. XLVI, 7 *a*.

29. Bowl, small, shallow, with open spout at the rim. Type X b, pl. XLVII, 5.

23. Amphora, small, globular, with short concave neck, no neck-line, and two string-hole projections at the neck-base. Type VI b, pl. LI, 7.

26, 38. Jug, oval, with pointed base, tapering neck, funnel-rim, and knobbed handle from neck to shoulder. Snake ornament or stripes in relief on the neck. Type I b, pl. XLVII, 12.

40. Jug, similar shape to preceding. Incised. Type II c, comparable with pl. XLVIII, 8.

7, 22, 36. Juglet, pear-shaped, with tapering neck, funnel-rim, and handle from rim to shoulder. Incised. Type VI b, pl. LI, 7.

1. Juglet, similar to preceding; with handle from neck to shoulder.

33. Bottle, of conical shape, flat base, curved cutaway neck, and string-hole projection at the neck-base. Incised. Type IV a, comparable with pl. xxxix, *a*.

4. Pyxis, oblong, with plank-shaped idol near the mouth and a second one (wanting) on the opposite side. Incised. Type III, comparable with pl. xxxvi, *a*.

39. Composite vase : three jugs supporting fourth one with cutaway neck. Incised. Like pl. xxxi, *d*.

20. Cooking-pot, globular, with wide, short neck, and handles from rim to shoulder. Type I c.

Black Polished ware :

27. Bowl, hemispherical, with string-hole projection by the rim. Incised. Type II, pl. LIII, 14.

2. Juglet, fragmentary. Incised.

35. Bottle, globular, tapering neck, and small string-hole projection near the rim. Type VI a, pl. LIII, 12.

White Painted ware :

19. Amphora, pear-shaped, low cylindrical neck, out-turned rim, and small handles at the neck-base. Red lustrous pattern on burnished creamy-coloured slip; cross-hatching on neck, and bands of cross-hatching alternating with wavy lines pendent from the neck-base. Type IV d, comparable with pl. LVI, 1.

B. Miscellaneous

8. Limestone mace-head, of cylindrical shape, slightly convex sides. Type II, pl. LIX, 12.

C. Bronze.

11. Knife with distinct tang. Type II *a*, pl. LX, 5.

FINDS FROM THE SIDE CHAMBER

A. Pottery

Red Polished ware :

Bowl, small, hemispherical, with string-hole projection at the rim, black inside and outside round rim. Fourteen examples. Type VI b, pl. XLVI, 3.

1, 25. Bowl, shape similar to preceding. Incised. Type VI b, pl. XLVI, 3 *a*.

12, 26, 29. Bowl, shape similar to preceding; with open spout at the rim. Type X b, comparable with pl. XLVII, 5.

13. Amphoriskos, pear-shaped, with wide cylindrical neck, and rim turned outwards. Two small handles at the neck-base. Incised. Type VII a, pl. LI, 1, but smaller.

32. Jug, oval, with cutaway neck, and handle from rim to shoulder. Type VIII b, as on pl. LI, 10.

3, 5, 10, 11, 17, 22, 23, 27. Juglet, pear-shaped, with tapering neck, funnel-rim, handle from rim to shoulder. Incised. Type VI b, as on pl. LI, 7.

14, 16. Juglet, similar to preceding; handle from neck to shoulder. Incised. Type VI b.

30. Juglet, globular, with cylindrical neck, out-turned rim, handle from rim to

shoulder, and tubular spout. Type VIII d, comparable with pl. LII, 13, except for the rim.

19. Jug, globular, short wide neck, vertical loop-handle, and string-hole projection opposite. Type V b, comparable with pl. L, 2.

9. Bird-shaped vase, with open spout, basket-handle and legs. Incised. Pl. xxxix, f.

TOMB 39

The dromos measures 2.80 m. in length, 1.52 m. in width, and 1.95 m. in depth. The chamber measures 3.80 m. north-south, and 4.40 m. east-west. The skeletons were all decomposed, with the exception of a few bones found in the north-western part of the chamber. The vases were found along the eastern, southern, and western sides of the chamber. The largest vases, mostly large bowls, were grouped in the western part. It is quite possible that this tomb was visited by looters, because it communicated with tomb 37 which, as already mentioned, was robbed. This is corroborated by the condition of the finds.

FINDS

A. Pottery

Red Polished ware:

10. Bowl, large, wide, with small flat base, diverging sides, flat handle, and tubular spout below the rim, snake ornament all round below the rim, and U-shaped ornament pendent from the rim. Type III c, as pl. XLV, 5.

34. Bowl, similar to preceding but deeper; small ledge handles at the rim, straight stripes enclosing snake ornament pendent from the handles. Type II a, similar to pl. XLIV, 3.

5, 9. Bowl, large, wide, with small flat base, diverging sides, ledge handles at the rim, and stripes in relief pendent from the handles. On 5 the stripes enclose snakes. Type III b, similar to pl. XLV, 3.

Bowl, small, hemispherical, with string-hole projection at the rim, black inside and outside round rim. Twenty examples. Type VI b, pl. XLVI, 3.

53, 70. Bowl, similar to preceding. Incised. Type VI b, pl. XLVI, 3 a.

60. Bowl, small, deep, with small flat base, diverging sides, projections on the rim. Incised. Type IX b, pl. XLVII, 1.

13, 15. Amphora, globular, with flat base, tapering cylindrical neck, out-turned rim, knobbed handles from neck to shoulder. 13 = Type II a, as pl. L, 4; 15 = Type IV a, as pl. L, 10.

17. Amphora, small, pear-shaped, with rounded base, cylindrical neck, handles from neck to shoulder. Type VII b, pl. LII, 3.

20. Amphora, pear-shaped, with out-turned rim, string-hole projections at the neck-base. Type VII b, as on pl. LII, 3.

3, 4, 12, 14, 22, 31, 37, 46, 52, 88. Jug, oval, with pointed base, tapering neck, funnel-rim, knobbed handle from neck to shoulder. Type I b, pl. XLVII, 12.

1, 18. Jug, oval, fragmentary, with rather wide, tapering neck, and flaring rim. Type III b, as on pl. XLIX, 2. No. 1 = Type III c.

8. Jug (pl. XIX, a, b), oval, with pointed rounded base, wide cutaway neck, handle from neck to shoulder. Snakes in relief on neck, two stags looking left in relief below handle and a third with big antlers looking right, represented on the side. Type IV d.

2. Jug, oval, with wide cylindrical neck and handle from rim to shoulder. Type V b, pl. I, 2.

7, 19, 27, 28, 33, 39, 44. Juglet, pear-shaped, with tapering neck, funnel rim, handle from rim to shoulder. Incised. Type VI b, as on pl. LII, 7.

30. Juglet, similar to preceding; handle from neck to shoulder.

23, 56. Juglet, shape similar to preceding; shorter neck. Plain. Type VI b, as on pl. LII, 7.

32, 63, 65. Bottle, pear-shaped, tapering neck, funnel rim, upper part blackened. Incised. Type III, as on pl. LIII, 2.

Black Polished ware:

69. Bowl, hemispherical with string-hole projection by the rim. Incised. Type II, pl. LIII, 14.

38. Bottle, horn-shaped. Incised. Similar to pl. LIII, 4.

Black Slip ware:

11. Jug, oval, with knobbed base, narrow cutaway neck, and handle from rim to shoulder. Pl. LIII, 6.

B. *Bronzes*

68. Knife, with distinct tang (missing). Type II a, pl. LX, 5.

67. Tweezers. Type III, pl. LX, 23.

TOMB 40

Access to this tomb was made possible through tomb 39 with which it communicated. This must have happened in recent times when the partition of the two tombs collapsed. Tomb 40 was naturally looted at the same time as tombs 37 and 38, and 39. The chamber measures 2.40 m. north-south and 3.60 m. east-west, and is rounded; along its south-western side there is a platform 0.73 m. above the floor. This platform extended southwards into a narrow passage, the south side of which communicated with tomb 38, and was blocked by a stone slab.

The skeletons and the finds were found in great disorder, and on the platform, where a child was apparently buried, were a few vases.

FINDS

A. Pottery

Red Polished ware:

9, 10, 12; 17. Bowl, small, hemispherical, with string-hole projection at the rim. Type VI b, pl. XLVI, 3.

16. Bowl, small, similar to preceding; horizontal loop handle at the rim. Type VI g, comparable with pl. XLVI, 7 a, but without spout.

1. Jug, pear-shaped, with cylindrical neck and out-turned rim, handle from neck to shoulder. Type III c, pl. XLIX, 3.

11. Jug, globular, with cylindrical neck and out-turned rim, handle from rim to shoulder projection at neck-base. Incised. Type V a, pl. XLIX, 8.

4, 5, 6, 20. Juglet, pear-shaped, tapering neck, funnel rim, handle from rim to shoulder. Incised. Type VI b, pl. LI, 7.

13, 19. Juglet, pear-shaped, cylindrical neck, rising handle from rim to shoulder. Type VII a, similar to pl. LI, 9.

14. Juglet, similar to preceding but with cutaway neck. Type VII b.

18, 21. Cooking-pot, globular, with short, wide neck, and two handles. Type I c.

Black Polished ware:

22. Bowl, small, hemispherical, with string-hole projections at the rim. Incised. Type II.

White Painted ware:

7. Bowl, small, shallow, with vertical loop handle. Hatching round the rim. Bands of hatching and zigzag running across the base. Type IV b, pl. LVI, 4.

2. Amphora, globular, with cylindrical neck, out-turned rim, and knobbed handles from neck to shoulder. Bands of hatching round body. Type IV d, pl. LVI, 1.

B. Miscellaneous

24. Human figurine of Red Polished ware, which probably stood on the rim of a bowl. Pl. LX, 30.

23. Bird, of Red Polished ware, again from the rim of a bowl. Pl. LX, 28.

C. Bronze

15. Pin with distinct head. Type II, pl. LX, 16.

FINDS FROM THE PLATFORM

A. Pottery

Red Polished ware:

3. Bowl, small, hemispherical, with string-hole projections by the rim. Rather thin ware. Type VI b, pl. XLVI, 3.

1. Bowl, small, hemispherical, with horizontal loop handle by the rim. Type VI g.

2. Juglet, globular, with low wide mouth and rising loop handle by the rim. Type IX b.

White Painted ware:

4. Amphora, globular, with cylindrical neck and two pierced projections at the neck-base, bands of cross-hatching round the body. Type V, shape similar to pl. LVI, 2.

TOMB 41

The dromos, which measures 2.90 m. in length, 1.60 m. in width, and 1 m. in depth, had been used in the fourth century B.C. for burying a child (pl. VI, *b*). A small dromos and chamber were cut to a deeper level than that of the Bronze Age dromos, and after the burial a few stones were placed to mark the doorway, while other stones were placed on the body. This was buried in the eastern part of the tomb, and a few vases of Plain White and Black on Red wares were deposited in the western part. A side chamber facing west and belonging to the original dromos remained undisturbed. In this a nearly decomposed skeleton of a child was found.

The chamber measures 2 m. north-south and 2.20 east-west, and the roof had collapsed (pl. VI, *c*). The skeletons were in a bad state of preservation, but four skulls in a very decomposed state were found in the north-western part of the chamber. A fifth skull was found in the south-western corner. The vases covered most of the chamber, with the exception of the north-western corner, where the skulls were found. Large jugs were lying on the left below the doorway; farther south were large bowls containing smaller ones, while the interspaces were filled with smaller vessels. A few vases were found on the skulls or near them.

FINDS

*A. Pottery**Red Slip ware:*

62, 63. Bowl, deep, conical, with pointed base, and four projections on the rim. Incised. Type I, pls. XII, *d*; XLVI, 1.

Red Polished ware:

51, 59. Large deep bowl with small flat base, diverging sides, rim curving in, flat handle (missing) and tubular spout much below the rim. Type I b.

52. Large deep bowl with flattened base, convex sides, loop handle, and tubular spout below the rim. Type II b, pl. XLIV, 5.

36, 57. Bowl, large, wide, with flat base, diverging sides, ledge handles at the rim, and snake ornament or straight bands in relief pendent from the handles. Type III b, pl. XLV, 3.

18, 60. Bowl, large, wide, with flat base, diverging sides, ledge handle, and open spout at the rim. Type V, pl. XLV, 7.

Bowl, hemispherical, with string-hole projections at the rim. Twenty-seven examples. Type VI b, pl. XLVI, 3.

15, 26, 31, 34. Bowl, similar to preceding with open spout at the rim. Type VI b.

33, 41, 47, 58, 64. Bowl, small, shallow, with projections on the rim. Type X a, pl. XLVII, 6.

20, 49. Jug, oval, with nearly pointed base, rather wide tapering neck and well-defined neck line, flaring rim, and handle from neck to shoulder. Type III b, pl. XLIX, 1.

2, 8. Jug similar to preceding but neck tending to be cylindrical. Type III b, pl. XLIX, 2.

21, 38. Jug, oval, with tapering neck, knobbed handle from neck to shoulder. Snake ornament on neck. Type I b, pl. XLVII, 12.

67. Jug, oval with pointed base, long tapering neck, flaring rim, and handle from neck to shoulder. Incised. Type II a, pl. XLVIII, 6.

55. Jug, oval, with small, flat base, cutaway neck with no neck-line, handle from rim to shoulder. Type IV a, pl. XLIX, 4.

19. Amphora, oval with tapering neck, out-turned rim, handles from neck to shoulder. Lower part missing. Type II a, pl. I, 4, 5.

24. Amphora, globular, with cylindrical neck, pierced projections at the neck-base. Type VII b, pl. LII, 3.

14. Amphora, oval, with flat base, concave neck, handles from neck to shoulder. Type III, pl. I, 8, but of small size.

28. Bottle, globular, with cylindrical neck, rim missing. Incised. Upper part blackened. Type III.

3, 10, 11, 13. Bottle, pear-shaped, funnel rim. Incised. Type III, pl. LIII, 2.

45, 46. Cooking-pot, oval, with cylindrical neck, handles from rim to shoulder. Type II a.

White Painted ware :

16. Bowl, shallow, with small ledge handle pierced with two holes, and open spout below rim. Wavy circle enclosing strokes on the base. Horizontal and vertical bands of straight lines enclosing wavy ones and circles enclosing wavy line in the interspaces. Type I c, comparable with pl. LV, 6 and 7, and pl. XL, d. Development of pattern pl. LVIII, 2.

FINDS FROM THE SIDE CHAMBER

A. Pottery

Red Polished ware :

Bowl, small, hemispherical with string-hole projection by the rim; black inside and outside round rim or entirely red. Fourteen examples. Type VI b, pl. XLVI, 3. One example incised.

16, 18. Bowl, shallow with projections on the rim and open spout. Type X a, pl. XLVII, 6.

9. Bowl, small, hemispherical with vertical loop handle. Type VI g, pl. XLVI, 7 b, but with much smaller handle.

3. Jug, oval with tapering neck, flaring rim, handle from neck to shoulder. Type Ib, pl. XLVII, 11, but smaller.

2, 23. Jug with oval body, tapering cutaway neck and handle from rim to shoulder. Type IV a, pl. XLIX, 4.

11, 12. Juglet, oval, tapering neck, no neck line, flaring rim, handle from neck to shoulder. Similar to type III b, pl. XLIX, 1.

8. Juglet, pear-shaped with short cylindrical neck, funnel-rim, handle from rim to shoulder. Type VI b, pl. LI, 8.

TOMB 42

The dromos is of the usual type, and the chamber faces north. The door-slab is rounded, and a few stones were placed along the sides.

The chamber is round, and measures 2.72 m. north-south and 2.55 m. east-west (pl. VI, e). The sides were consolidated with several courses of stones, but the roof had collapsed.

There was a skeleton in the north-western part of the chamber. The body was in the recumbent position, the head to the north. There was a second skeleton on the left, but farther to the south-east. On the skull was a large jug (2), and the lower part of the body was covered with vases. Other bones were found in no order among broken vases in the eastern part of the chamber. It is evident that these bones belong to early burials which were removed in order to make room for the two skeletons found *in situ*. The vases, which were very broken, covered most of the remainder of the chamber.

FINDS

A. Pottery

Red Polished ware :

22, 38, 48. Bowl, large, deep, with small flat base, convex sides, flat handle, and tubular spout. Type II a, as on pl. XLIV, 3.

64. Bowl, similar to preceding but with vertical loop handle. Type II b, as on pl. XLIV, 5.

67. Bowl, similar to preceding but with horizontal loop handle on the upper part. Type II b, as on pl. XLIV, 5, except for the handle.

18. Bowl, small, deep, with horizontally pierced knob base, and four projections on the rim. Incised. Type VII b, as on pl. XLVI, 9.

12. Bowl, small, deep, with out-turned rim and concave lid, upper part and lid blackened. Incised. Type XI, pl. XLVII, 9.

Bowl, hemispherical with string-hole projection at the rim. Type VI b, pl. XLVI, 3.

6. Bowl, shape similar to preceding. Incised. Type VI b, pl. XLVI, 3 a.

62. Bowl, small, hemispherical with horizontal loop handle, and open spout at the rim. Type VI f, as on pl. XLVI, 7.

41. Bowl, small, shallow, with projection at rim, and open spout below the rim. Ridge below the rim. Type X b, shape of spout and ridge as on pl. LV, 9.

2, 3, 29, 61. Jug, oval, with pointed base, tapering neck, funnel rim, knobbed handle from neck to shoulder. Snake ornament in relief on the neck. Type I b, as on pl. XLVII, 12.

69. Jug, shape similar to preceding. Incised. Type II c, similar to pl. XLVIII, 7.

5, 10, 70. Juglet, pear-shaped, with tapering neck, funnel rim, handle from neck to shoulder. Incised. Type VI b, pl. LII, 7.

7, 8, 21. Bottle, pear-shaped with tapering neck, funnel rim. Upper part blackened. Type III, pl. LIII, 2.

37. Amphora, oval, with small flat base, tapering neck, two horizontal loop handles on the shoulder. Type II b, pl. I, 6.

4. Amphora, oval, with small flat base, cylindrical neck, out-turned rim, pierced knobs at the neck base. Type VII b, as on pl. LII, 3.

20. Cooking-pot, only the neck is preserved. Type II b, as on pl. LI, 3.

B. Miscellaneous

13. Spindle-whorl. Type I, pl. LIX, 7.

C. Bronzes

9, 17. Pin.

TOMB 43

The dromos is of the usual type. Besides the main chamber which faces north, a side chamber faces east. The main chamber measures 2.60 m. north-south and 3.10 m. east-west, and had been looted while the side chamber (tomb 43A) was intact.

TOMB 43A

The chamber is irregular and measures 3.10 m. north-south and 2.60 m. east-west. There was a much decomposed skeleton along the east side, head to the north. The finds were grouped in the north part of the chamber on the left of the doorway. There was first a large bowl (34) containing a smaller one, a jug (23), and not far off a large bowl (13). Other large bowls and jugs were found farther east. A few small vases were found in the south part of the chamber.

FINDS (TOMB 43A)

A. Pottery

12, 13. Bowl, large, wide, with small flat base, diverging sides, flat handle, and tubular spout. Ornamentation in relief below the rim, rope or snake ornament; ledge handles on the rim and stripes pendent from them, Type II a, as on pl. XLIV, 8.

34. Bowl, large, wide, with small flat base, diverging sides, bent-in rim, and four ledge handles at the rim, straight stripes enclosing snake pendent from the handles. Type III b, as on pl. XLV, 3.

39. Bowl, large, wide, similar to preceding but with more rounded sides. Type III b, similar to pl. XLV, 2.

Bowl, small, hemispherical, with string-hole projection by the rim, black inside and outside round rim. Seventeen examples. Type VI b, pl. XLVI, 3.

33. Bowl with spreading sides, low cylindrical stem, horizontally perforated, and small projections by the rim. Incised. Type IX e, pl. XLVII, 3.

9. Amphora, pear-shaped, with rounded base, cylindrical neck, out-turned rim, handles from neck to shoulder. Type VII a, pl. LI, 10.

6, 7, 23. Jug, oval, with pointed base, tapering neck, funnel rim, knobbed handle from neck to shoulder. Snake ornament in relief on the neck. Type I b, pl. XLVII, 12.

5, 8. Jug, oval, with pointed base, rather wide neck, flaring rim, and handle from neck to shoulder. Type III b, pl. XLIX, 2.

38. Jug, oval? (body partly missing), wide cylindrical neck, out-turned rim, handle from rim to shoulder. Type V b, pl. I, 2.

1, 36. Juglet, globular, with short neck, funnel rim, handle from rim to shoulder. Incised. Type VI b, pl. LII, 7.

3. Juglet, oval, with cutaway neck, handle from rim to shoulder. Type VIII b, pl. LII, 10.

26. Bottle, pear-shaped with tapering neck, straight rim. Incised. Type II, similar to pl. LIII, 5.

4, 18, 20, 28, 29. Bottle similar to preceding but with funnel rim. Upper part blackened. Incised. Type III, pl. LIII, 2.

14. Composite vase, four cups and tall ladder-shaped handle with stepped sides. Incised. Type II b, similar to pl. XXVII, b.

B. *Bronze*

11. Pin.

TOMB 44

The dromos was destroyed, and the roof of the chamber, which measures 1.20 m. north-south and 1.50 m. east-west, had fallen in. A skull was found in the western part of the chamber, and near it a bowl (1). In the eastern part was a group of Red Polished vases.

FINDS

A. *Pottery*

Red Polished ware :

1, 2, 7, 8, 9, 10. Bowl, small, hemispherical, with string-hole projection at the rim. Type VI b, pl. XLVI, 3.

5. Bowl, similar to preceding, projection and open spout on the rim. Type X b, similar to pl. XLVII, 5.

3. Bowl, similar to preceding, horizontal loop handle, and open spout on the rim. Type VI f, pl. XLVI, 7.

12. Juglet, oval, with tapering neck handle from neck to shoulder. Incised. Type VI b.

White Painted ware :

4. Bowl, nearly hemispherical, with open spout below the rim, ridge round the rim. Bands of wavy lines enclosing straight ones from rim to base. Type II b, as on pl. LV, 9.

TOMB 45

The dromos was not cleared. The roof of the chamber had fallen in. Its shape is rounded (pl. VI, *d*), and it measures 2.30 m. north-south and 2.80 m. east-west. In the western part the lower portion of a skeleton was lying *in situ*; its upper part was decomposed. Other bones were found among the finds in the eastern part of the chamber. Not far from the legs of the skeleton was a large Red Polished bowl (9) containing other smaller ones. On the feet were a bent bronze dagger-blade (2) and a bronze pin (3). All the eastern part of the chamber was covered with pottery. About a metre east of the skeleton, clay models of a dagger and sheath (14 and 15, pl. XXIX, *a*) of Red Polished ware were found among the pottery. The skeleton found *in situ* seems to belong to the last burial, the previous remains having been removed and placed among the vases.

FINDS

A. Pottery

Red Polished ware :

8, 38. Bowl, large, deep, handle missing, tubular spout. Rope ornament near the rim, and snake ornament pendent from the rim. Type II b, similar to pl. XLIV, 5, except for the handles, which are missing.

9. Bowl, large, wide, with flat base, ledge handle below the rim. Type III b, similar to pl. XLV, 3.

Bowl, hemispherical with string-hole projection at the rim. Type VI b, pl. XLVI, 3. Twenty-four examples.

5, 12, 32, 36, 40, 45. Bowl, similar to preceding with open spout at the rim. Type X b, pl. XLVII, 5.

7, 25, 53. Bowl, shallow with projections on the rim. Type X a, pl. XLVII, 6.

11. Bowl, hemispherical, with horizontal loop handle on the rim. Type VI f, pl. XLVI, 7.

46. Bowl, small, deep, with small flat slightly spreading base, diverging sides, and small projection below the rim. Black inside and outside round rim. Type VIII a, pl. XLVI, 11.

56. Bowl, small, conical, with small flat base and projections on the rim. Incised. Type IX a, pl. XLVI, 15.

31. Goblet, with long stem spreading at the base, nearly hemispherical bowl. Type I, as on pl. LIII, 7.

50. Jug, oval, with pointed base, neck spreading at the base and tapering to the top, flaring rim, handle from neck to shoulder. Type I b, pl. XLVII, 11.

54. Jug, similar to preceding but with rounded body.

55. Jug, oval, with pointed base, tapering neck, knobbed handle from neck to shoulder. Snake ornament on neck. Type I b, pl. XLVII, 12.

19. Jug, similar to preceding but with cylindrical neck and bands in relief round neck. Fragmentary. Type I d, similar to pl. XLVIII, 2.

63. Jug, with oval body, rounded base, cylindrical neck, out-turned rim, handle from neck to shoulder. Type III c, pl. XLIX, 3.

17, 59. Juglet, pear-shaped or globular, with tapering neck, funnel rim, handle from rim to shoulder. Incised. Type VI b, pl. LII, 7.

16, 61. Amphora, globular, cylindrical neck, handles at the neck base. Type VII b, pl. LII, 2, 3.

Black Polished ware:

21. Juglet, globular, with cylindrical cutaway neck, handle from neck to shoulder.

B. Miscellaneous

14, 15. Models of dagger and sheath of Red Polished ware. Blackened, except at the points. Incised. Pls. XXIX, a; LVI, 7, 8.

C. Bronzes

2. Dagger-blade, with tang curved at the end. Type III, as on pl. LX, 3.

1, 22, 23. Knife, with distinct tang and one rivet. Type II a, pl. LX, 5.

3, 27, 41. Pin, with no distinct top. Type III, pl. LX, 17.

TOMB 46

The dromos measures 3.45 m. in length, 1.45 m. in width, and 1 m. in depth. There are a main chamber and a side one opening on the west. The main chamber measures 1.60 m. north-south and 3 m. east-west, and had been looted, but the side chamber, tomb 46 A, was intact.

TOMB 46 A

The chamber is oblong. It measures 3 m. north-south and 1.60 m. east-west. In the north-western part were a few bones, while the pottery finds, large bowls containing smaller ones, large jugs, and smaller vessels, more or less

covered the whole floor of the chamber. Among the large vessels was a double-necked Red Polished incised jug (23) with a bird modelled in the round between the two necks (pl. xxv, *c*).

FINDS (TOMB 46 A).

A. Pottery

Red Polished Ware :

19, 32, 48. Bowl, large, deep, with small flat base, converging sides, flat handle, and tubular spout below the rim. Relief ornament round the rim, or U-shaped pattern in relief pendent from it. Type II a, as on pl. XLIV, 3.

17. Bowl, large, wide, with ledge handles at the rim and relief bands pendent from the handles. Type III b, as on pl. XLV, 3.

Bowl, hemispherical, with string-hole projection at the rim. Twenty-five examples. Type VI b, pl. XLVI, 3.

37. Bowl, similar to preceding with open spout at the rim. Type VI d.

6, 18, 22, 24, 43. Jug, oval, with pointed base, tapering neck, flaring rim, and handle from neck to shoulder. Snake ornament in relief on the neck. Type I b, pl. XLVII, 12.

11, 27. Jug, oval, with pointed base, rather wide tapering neck, flaring rim, and handle from neck to shoulder. Type III b, as on pl. XLIX, 2.

23. Jug, oval, with pointed rounded base, two tapering necks, and upper part of bird between the two necks in front. Incised. Type II c, pl. xxv, *c*.

3, 4, 30, 34. Juglet, pear-shaped, with tapering neck, flaring rim, and handle from rim to shoulder. Incised. Type VI b, as on pl. LII, 7.

7. Juglet, shape similar to preceding, plain (neck missing).

2, 8. Bottle, pear-shaped, neck missing. Incised. Type III, pl. LIII, 2.

20. Amphora, oval with flat base, short concave neck, and two handles at the neck-base. Type III, pl. I, 8.

28. Cooking-pot, oval, with small flat base, cylindrical neck, and two handles from rim to shoulder. Type II b, pl. LI, 3.

B. Bronzes

15, 25. Knife, distinct tang and one rivet. Type II a, as on pl. LX, 5.

TOMB 47

The dromos measures 2.90 m. in length, 1.82 m. in width, and 1.34 m. in depth; the chamber faces north. The doorway was blocked by a flat rectangular slab with smaller stones all round.

The chamber (pl. VI, *f*) measures 4 m. north-south and 4.80 m. east-west, and the roof had fallen in. Two skeletons were found in the west side with their heads to the north. They were lying on their backs, and the legs were straight. Along the west wall were a few more long bones. A third skeleton was found *in situ* along the south side with the head to the west. Two bronze pins and a spindle

whorl were found on the chest. North of this skeleton were remains of different skeletons, the order of which was disturbed. About the centre of the chamber there was an isolated skull near the bowl (14). The pottery was lying in a compact mass along the east part of the chamber in a very broken state. In the south part of this side there were three large Red Polished amphorae (30, 36, 38). A bronze dagger was found near the south-east side of the chamber.

FINDS

A. Pottery

Red Polished ware :

20. Bowl, small, conical, with small flat base, horn-shaped handle, and tubular spout below the rim. Type I a, pl. XLIV, 2.

Bowl, small, hemispherical, with string-hole projection at the rim, black inside and outside round rim. Fifteen examples. Type VI b, pl. XLVI, 3.

58. Bowl, small, hemispherical, with projections on the rim. Type VI c, as on pl. XLVI, 4.

82, 88. Bowl, similar to preceding. Incised. Type VI c, as on pl. XLVI, 4.

77, 87. Bowl, similar to preceding, with open spout at the rim. Type VI c, comparable with pl. XLVII, 5.

30, 36. Amphora, large, oval, with flat base, cylindrical neck, out-turned rim, handles from neck to shoulder. Type IV b, similar to pl. LI, 1.

32, 38. Amphora, small, globular, with flat base, cylindrical neck, knobbed handles from neck to shoulder. Type IV a, as on pl. L, 10.

31. Amphora, globular, wide, tapering neck, flaring rim, two earlugs on the shoulders. Upper part blackened. Incised. Type V, pl. LI, 5.

3, 29, 65. Amphora, globular, with round base, cylindrical neck, small handles at the neck-base. Type VII b, as on pl. LII, 2.

15. Amphora, oval, with concave neck, small foot at the base, and handles from neck to shoulder. Type IX, pl. LII, 5.

51, 54, 80, 81, 87. Jug, oval, with pointed base, tapering neck, funnel rim, and knobbed handle from neck to shoulder. Type I b, as on pl. XLVII, 12.

28. Jug, oval, with rounded base, tapering neck, and funnel rim, rings in relief round neck. Type I c, shape as on pl. XLVIII, 1.

6, 53, 63. Jug, similar to preceding, with cylindrical neck, flaring rim, rings and snakes in relief on neck. Type I d, pl. XLVIII, 2.

55. Jug, oval, with pointed base, tapering neck, funnel rim, handle from neck to shoulder. Incised. Type II c, similar to pl. XLVIII, 7.

85. Jug, oval, with round base and three necks. Incised. Type II c, pl. xxv, b.

67. Jug, oval, with rounded base, short rather wide cylindrical neck, out-turned rim, and handle from neck to shoulder. Type III c, pl. XLIX, 3.

7, 16, 18, 19, 24, 27, 37, 42, 62, 64, 68, 69, 71, 76. Juglet, pear-shaped, with tapering neck, funnel rim, and handle from rim to shoulder. Incised. Type VI b, pl. LII, 7.

12. Juglet, as preceding but not incised. Type VI b.

26, 33, 45. Juglet, oval or globular, with cutaway neck, and handle from rim to shoulder. Type VIII b, as on pl. LII, 10.

13. Juglet, similar to preceding but with tubular spout. Type VIII d, as on pl. LII, 13.

43, 57. Juglet, globular, with wide out-turned mouth, and rising handle from rim to shoulder. Type IX a, similar to pl. LII, 15, but with vertical loop handle.

56. Amphoriscos, globular, with short neck, and two pierced projections. Incised.

22. Bottle, nearly cylindrical, with flat base, cutaway neck, and pierced projection at the neck-base. Incised. Type IV a, pl. xxxix, a.

59. Bottle, pear-shaped, with tapering neck, and funnel rim. Incised. Upper part blackened. Type III, pl. LIII, 2.

40, 41, 60. Cooking-pot, globular or oval, with low neck, and handles from rim to shoulder. Type I c.

23. Pyxis (pl. xxxvi, b) oblong, with two small cups and small horizontal loop handles near the mouth. Type II.

B. *Miscellaneous*

21. Spindle whorl of Red polished incised ware. Type III, pl. LIX, 8.

C. *Bronzes*

4, 5. Dagger-blade, elongated with midrib and hooked tang. Type II, pl. LX, 2.

2. Knife, without distinct tang, and with three rivets. Type I, pl. LX, 4.

11, 66. Knife, with distinct tang and one rivet. Type II a, pl. LX, 5.

1, 9, 10, 61. Pin, with distinct top. Type II, pl. LX, 16.

8. Pin, without distinct top. Type III, pl. LX, 17.

17. Ring. Pl. LX, 25.

49, 79. Tweezers. Type III, pl. LX, 23.

TOMB 48

The dromos is of the usual type, and its orientation is north-west-south-east. It was not entirely cleared.

The chamber which faces north-west measures 3.20 m. north-south and 4.40 m. east-west, and was found to have been partly disturbed by looters. The skeletons were entirely decomposed, and the pottery finds were almost all grouped along the north-east part of the chamber. About 1.40 m. east of the chamber was the upper part of a female figure, holding a child in her arms, belonging to a composite vase (2), of which the lower part was found 1 m. to the south (pls. xxvii, a; xxx, b). Near the latter was a nest of large Red Polished vases and another one was near the south-eastern side. In the south-western part of the chamber were a few bronze knives and a dagger; similar finds were found in the north-western part of the chamber.

When the upper layer of vases found in the eastern part of the chamber was removed, a second layer was found, particularly along the side of the chamber.

FINDS

A. Pottery

Red Polished ware :

56. Bowl, large, deep, with small flat base, converging sides, flat handle, and tubular spout below the rim, band of rope ornament round rim and U-shaped ornament pendent from the rim. Type II a, comparable with pl. XLIV, 6.

Bowl, small, hemispherical, string-hole projection by the rim, black inside and outside round rim. Twenty-two examples. One example incised. Type VI b, pl. XLVI, 3.

9. Bowl, similar to preceding, open spout at the rim. Type VI f, similar to pl. XLVI, 7.

6, 42. Bowl, small, hemispherical, with horizontal loop handle below the rim. Type VI g.

35. Bowl, small, hemispherical, with vertical loop handle and tubular spout. Type VI g, comparable with pl. XLVI, 7 a.

24, 25, 26, 30. Amphora, oval, with flat base, cylindrical neck, out-turned rim, and handles from neck to shoulder. Type IV b, pl. LI, 1.

39. Amphora, globular, with flat base, concave neck, and handles from neck to shoulder. Type III, similar to pl. L, 7.

40. Amphora, oval, with small flat base, tapering neck, out-turned rim and two horizontal loop handles on the shoulder. Type II b, as on pl. L, 6.

32. Amphora, small, globular, with short neck, and small handles at the neck-base. Type VI b, as on pl. LI, 7.

30. Amphora, globular with cylindrical neck, pointed base, two small handles at the neck-base. Type VII a, pl. LI, 10.

45, 47. Jug, oval, with tapering neck and funnel rim, knobbed handle from neck to shoulder. Ornamentation in relief on the neck. Type I b, as on pl. XLVII, 12.

55. Jug, oval, with rounded base, nearly cylindrical neck, handle from neck to shoulder. Rings in relief round neck. Type I c, shape as on pl. XLVIII, 1.

48. Jug, similar to preceding, but with two necks. Incised. Type II c, comparable with pl. xxv, b.

4, 5, 38. Jug, oval, with rounded base, rather wide cylindrical neck, out-turned rim, and handle from neck to shoulder. Fragmentary. Type III c, pl. XLIX, 3.

59. Jug, similar to preceding but with cutaway neck ornamented with snake ornament in relief. Fragmentary. Type IV d, as on pl. XLIX, 6.

13, 57, 58. Juglet, pear-shaped, with tapering neck, funnel rim, and handle from rim to shoulder. Incised. Type VI b, pl. LI, 7. The ornamentation on no. 58 is painted in dark red colour.

14, 31, 34, 37. Juglet, oval, with rather wide cutaway neck, handle from rim to shoulder. Type VIII e, comparable with pl. LI, 14.

1. Juglet, pear-shaped with curved cutaway neck, handle from rim to shoulder, and tubular spout. Type VIII d, similar to pl. LI, 13.

36. Juglet, oval, with short, wide neck and handle from rim to shoulder. Type IX a, similar to pl. LI, 15, except for the handle.

18. Pyxis, oblong, rather flattened and rectangular horizontal loop handle near the mouth. Incised. Type III.

2. Composite vase (pls. xxvii, *d*; xxx, *b*), four cups with tall ladder-shaped handle, the top of which is a female idol holding infant. Incised. Height 0.46 m. Type II d.

8, 15. Cooking-pot, globular with low neck, two handles from rim to shoulder. Type II d, as on pl. LI, 4.

B. *Bronzes*

49, 52. Dagger-blade with midrib and hooked tang. Type II, pl. LX, 2.

50, 51, 53. Knife, with distinct rectangular tang and 1-3 rivets. Types II a-II c, pl. LX, 5-7.

GENERAL REMARKS ON THE TOMBS AND BURIALS

GROUPING OF THE TOMBS

The tombs belong to four distinct groups according to their situation in the necropolis. These groups are: (i) the upper eastern group, (ii) the upper western group, (iii) the central group, and (iv) the lower group.

Group i includes mostly tombs belonging to period I and a few of periods II and III. The upper or southern series of tombs belonging to group i were mostly small, and practically all had collapsed as the quality of the rock was rather bad, but a few tombs, which were somewhat lower, were found in a good state of preservation as the rock was of much more solid quality. Among these were tombs 13, 14, 15, which belong to period II, and which form part of the same class of tombs as those of group iii, i.e. the central group.

Group ii, i.e. the upper western, includes tombs mostly of period II. The rock at this part of the necropolis is of more solid quality, and except for 45 and 47 which had fallen in, the tombs were found in a good state of preservation. Some of the tombs included in this group are tombs 2, 3, 5, 6, 7, 8, which are among the most typical Vounous tombs of period II.

Group iii, i.e. the central, included tombs 9, 10, 11, 12, which were large tombs and were found in a good state of preservation. The same group included tombs 21, 22, 23, 24, some of which were robbed. Among the robbed ones was tomb 22, which contained the remarkable model of a sacred enclosure (pls. VII, VIII).

Group iv, the lower group, was composed first of a number of large tombs which formed a group by themselves. These were tombs 37, 38, 39, 40, which were all large and in a good state of preservation, but were all looted, though not emptied of their contents. The rock was of quite good quality here except

in the partitions separating the chambers which had collapsed; thus all the chambers communicated with each other, a fact which facilitated the looting of all of them. The same lower group included tombs 43 and 46, which were farther south, and which belong to period II. Tomb 48 was situated at the extreme south-east end of the excavated part of the necropolis.

We see, therefore, that the most representative and well-preserved tombs were found between the lower limits of the upper groups and the lower group. Here the rock was solid, and offered the possibility of cutting large tombs. These are the tombs of period II, the period of the large bowls with rich ornamentation in relief and of the large jugs with animals represented in relief. We have mentioned that the south-eastern group, i.e. group i, included mostly tombs belonging to period I. The fact that the excavations carried out by Mr. J. R. Stewart in 1937¹ in the eastern part of the necropolis revealed tombs which belong to an earlier period of the necropolis, shows a movement from east to west. The tombs of the eastern part were small, evidently because large tombs were not practicable in an area where the rock was soft, but probably also because means for cutting large tombs in rock were not available to a large extent.² When the eastern part of the necropolis became crowded new large tombs were cut in the western part where the rock was solid. By then culture progressed, and metal tools were probably more and more available. Later, however, there is a renewal of activity in the south-eastern part of the necropolis where, in spite of the bad quality of the rock, some big tombs were cut; such are tombs 19 and 36, which had both fallen in and belong to period III and to the transition from II to III respectively. Both these tombs are important, perhaps some of the most important in the necropolis, a fact which shows that during period III, when the necropolis was becoming everywhere crowded, tombs were cut anywhere indiscriminately.

The orientation of the tombs was nearly always north-south, i.e. the doorway faced north. Nevertheless a good number of the tombs was orientated north-west-south-east. In one case (tomb 38 of the lower group) the orientation was east-west, the doorway facing east, and in another (tomb 50³ of the extreme south-west group) it was west-east, i.e. the doorway faced west.

DROMOI CHAMBERS, BURIALS

The dromoi belong to two classes: (i) the short with roughly parallel sides and rounded back, and (ii) the longer narrowing towards the back side which is either straight or rounded. Class i is represented only by a few dromoi, those

¹ *Antiquity*, September 1937, p. 356.

² E. Gjerstad, *Studies*, p. 268, and also *infra*, p. 154.

³ This tomb was excavated by the Louvre and the Cyprus Museum.

of tombs 16, 26, 36, the remainder belong to class ii. There is usually a rough step cut in the back, which then forms a rather abrupt slope ending at a small distance from the doorway where the floor is usually level (fig. 9). In one case, however (tomb 38), two steps were cut in the back of the dromos (pl. iv, *c*). The dromos of tomb 6 presented a special feature: a step was cut all round the top of the dromos (fig. 5).

The long sides of the dromos are either straight or slope slightly inwards, thus presenting a wedge-shaped section through the short axis. The stratification in the dromos showed a uniform filling of whitish earth, naturally the result of the original cutting of the dromos. Occasional fragments of Red Polished ware were found in the filling.

Each dromos gives access to a main chamber through the doorway, which is an opening of rectangular or rounded shape. But besides the main chamber there are side chambers of smaller size opening on either side of the dromos. The entrances to the main chamber, as well as those to the side chambers, were blocked by rectangular, rounded, or irregular slabs or rough blocks of limestone. Small stones were placed along the sides, the base of the slabs thus forming supports or fastenings. The number of side chambers varies from one to three, the latter number being the less common.

The descent from the dromos into the chamber is abrupt. The shape of the chambers is as a rule roughly rounded. An elliptical shape occurs only once (tomb 7). The rounded chambers, however, presented quite often certain irregularities. Thus the outline may curve in on the right or left of the doorway (tombs 3, 11), or both sides may approach one another towards the doorway, thus producing a gourd-shaped outline (tombs 35, 24). In other cases (tomb 8) one or several (tomb 43 A) sides bulge outwards. Tomb 29 is characteristic of this type; the side to the right of the doorway is brought out considerably, thus forming a triangular space in which various offerings were laid.

While these different irregularities may be accidental another feature noticed in several tombs (5, 6, 15, 17) seems to be intentional. These tombs show a distinct regular swelling of the outline of the chamber forming a separate space or niche in which bodies were laid. The use of these niches is established by tombs 5 and 17, in which well-preserved skeletons were found. The skeletons in the other two tombs were entirely decomposed, but we may conjecture from the nature of the finds that the bodies were laid in the separate area. In one case (tomb 15) the floor of the separate area is raised by 10 cm., while a ridge distinguishes it from the other part of the chamber. Tomb 9 presents a special feature: along the south side of the chamber the outline forms a distinct triangular niche of which the floor is 40 cm. above the general level of the chamber floor. On the floor of this niche some vases, a pyxis, and a few other

finds were found. But even more remarkable is tomb 37, which has along the southern and western sides a continuous bench of a width varying from 50 cm. to 1 m., and raised 25 cm. above the general level of the chamber floor. Nothing was found on the bench, probably owing to the fact that tomb 37 was partly looted, and the finds on the bench were thrown down. It is remarkable, though not conclusive, that tombs 5, 6, 15, 17, which had distinct spaces for the dead, belonged to period II, while tombs 9 and 37, which had a raised niche or bench, belonged to period III. The roof of the chambers when preserved was either flat or concave.

Tomb 35, one of the earliest, shows that the dead were buried both in the right and in the left parts of the chamber and that on top of them large vessels were laid. Tomb 41 contained five burials distinguishable only from the remains of the skulls found in the right-hand side of the chamber, mostly to the right of the doorway. Tombs 28 and 30, which belong to period I B, contain each one skeleton. In tomb 28 the skeleton was in the left part of the chamber, in tomb 30 in the right part. The tomb-gifts in tombs 35 and 41 are placed in the left part of the chamber, although in tomb 41 they cover more than half of the chamber floor. In tomb 30 the finds are nearly all in the left part, while in tomb 38 they are spread in the central part and along the sides of the left part.

It therefore appears that in the tombs of period I, although some exceptions are noticed, there is a special place reserved for the dead or for the tomb-gifts. The right-hand part of the chamber appears to be reserved for the dead, while the tomb-gifts are piled up in the left part.

The chambers attributed to period II, with the exception of a few, were disappointing from the point of view of human remains; they nevertheless yielded other important material which enables us to study the burial customs. As explained elsewhere these tombs represent the most flourishing and typical period in the Vounous necropolis. They were situated in the best part of the site, where the rock was hard, and therefore enabled chambers of large size to be cut. Moreover, the artistic productions of this period show a culture of some power and vigour. The artistic and general cultural development coincides with a development of the burial and of the rites which were performed in tombs in honour of the dead.

Generally speaking the dead are buried in the right part of the chamber which, given the usual orientation of the tombs, corresponds to the western part. The opposite part, i.e. the left or eastern, is reserved for the masses of tomb-finds, which consist mostly of pottery. As previously explained, the part of the chamber in which the bodies were buried was distinguished either by the raised floor or by a ridge which separated the area reserved for the dead from the remainder of the chamber. Moreover, in some tombs the chamber presented

a kind of niche or additional space for the bodies. Tombs 5 and 17 are the best examples of this custom. In both of these tombs the skeleton lies on the back, in an outstretched position, head towards the doorway. The skeleton in tomb 5 has the right knee bent to the right, while the arms are laid by the side of the body. In tomb 17 the feet overlap each other, while the hands are directed to the pelvis. Moreover, a small hemispherical bowl was found in the right hand. The human remains in the remainder of the tombs of this period were entirely decomposed, but the nature of the tomb-gifts found in the right part of the chambers indicate that it is in this part that the bodies were buried. Thus bronze daggers, pins, necklaces, pyxides, and small bottles, which usually are placed either on the bodies or near them, were found in the right part of the chambers, and mostly in the corner nearest to the doorway, which shows that the head was always towards the entrance.

The bodies were buried in their usual garments, a fact which is proved in some cases by the remains of cloth adhering to the daggers which were placed on the body (pl. XLII, *c*).

One of the most typical features in this period is the custom of offering large bowls full of large or smaller vessels, bowls, juglets, etc. (pls. III, *b, c*; IV, *a, b*). These large bowls, moreover, contain bones of animals, especially of oxen, which are evidently the result of food offerings or sacrifices made in honour of the dead. Animal bones were also scattered in different parts of the chamber among the vessels. The most striking example of this custom is shown by tomb 13. When the large bowl no. 29, which was turned upside down, was removed, a cluster of small bowls lying amongst remains of animal bones, big and small, was found pl. IV, *a*. Some of the small bowls were full of bones, and gave the impression that they had remained there since they were originally placed full of meat. The same tomb offered a more striking example of animal sacrifices in honour of the dead. When the numerous vases were removed we found that the floor of the chamber was covered with great quantities of bones, probably a large part of an animal, mixed up with small bowls pl. IV, *b*. This shows that sacrifices and libations were performed as part of the ritual ceremony in the tomb, and that the sacrificed animal was deposited on the floor of the chamber. After the first part of the ritual, the remainder of the tomb-gifts, i.e. vases of various types, were placed over the sacrificial layer.

In most of the tombs the number of the burials cannot be guessed, but it may be conjectured that several bodies were buried. If the chamber floor was covered with dead and room was needed for more burials, the human remains and the tomb-gifts of the first buried were treated without due respect; they were removed from their places and grouped anyhow along the sides of the chamber. In tomb 17 all the previous human remains and small gifts were

grouped along the back wall of the chamber, and thus the right-hand side was made perfectly clean to receive the last buried body. In tomb 27 previous human remains and the surrounding small finds, which seem to have occupied the right-hand part of the chamber, were disturbed and placed anyhow along the side of the same part of the chamber. The new burial was made in the part thus cleared (pl. iv, *d*). The bigger tomb-finds were left more or less *in situ*, and new ones were probably added for the new-comer. Soon afterwards another person of the same family died, but as the right-hand side of the chamber had been recently occupied, room was made in the left-hand part of the chamber where all the big vases were lying. Tomb 36, which though not a big tomb, contained an extraordinary number of burials (nine in all), presented a different sight. The remains of the oldest burials were grouped together and piled in the foreground of the chamber, where they were found in a mass mixed up with broken pottery (pl. v, *d*). The skeletons which were found in the right-hand part of the chamber were buried under large and small vases (pl. v, *e*). The same tomb contained some important evidence in connexion with ritual. When the mass of vases, found in the left part of the chamber, was removed, it was found that the floor was strewn with a large part of an animal's skeleton (ox) on which small bowls were placed (pl. vi, *a*). This is the same kind of sacrifice as those performed in tomb 13. It is not without importance to mention that among the vases found in the same part of the chamber, a large bowl with bull's heads and snakes pendent from their throats (pl. xi, *e*) was found, and that this bowl contained bones of oxen and a ring vase (pl. xxxiii, *d*). In other parts of the chamber we collected the bowl on pl. xiii, *c*, which was decorated with horned animals and snakes in relief, the remarkable bowl on pl. xiv, *b* with birds, horned animal's head on the rim, and snakes on the upper part, a goblet with long stem similar to pl. xv, *c*, and the two models of ox's horns on pl. xxxviii, *a*. All these outstanding finds, which remind us of the sacrifice of oxen found on the bare rock, may belong to the ritual equipment, and may have had a special use during the sacrifices.

Period III carried on the tradition which existed in period II. Tomb 19, however, presented more points of interest which, added to the excellence of finds, render this tomb important. Two skeletons, one next to the other, were found, this time in the left part of the chamber. Animal bones surrounded the two skeletons, while others were under them, a fact which proves that the tradition of offering parts of sacrificed animals continued.¹ Animal bones were also found mixed up with small vessels all along the sides of the same part of the chamber. As the left-hand side of the chamber was occupied by the bodies,

¹ The custom of placing animal bones under the bodies is also exemplified in Neolithic times. See *Erimi*, p. 12.

the large vessels (amphorae, jugs, etc.), the indispensable tomb furniture, were laid in a row in the right part along the sides of the chamber. The sacrificial rites noticed in this tomb coincide (as in tomb 36) with the existence of a few remarkable vases probably of ritual use, of which the most important is the complicated vase on pl. xxxii, *c*. This vase is composed of four big and three small jugs, and it is easy to imagine the imposing effect produced at a ritual ceremony, when the liquid contained in it was poured out simultaneously through ten spouts. The same tomb contained the remarkable double-necked jug on pls. xix, *d* and xx, which is decorated with two human figures (probably representing the two persons buried in the tomb), with horned animals, bucrania, and a bird modelled in the round and eating or drinking in a small bowl placed in front of it between the two necks. All these figured representations give additional evidence of the different rites performed in honour of the dead.¹

Some of the Vounous tombs besides the ordinary tomb-equipment consisting of pots, of ordinary or ritual use, of weapons, etc., contained either independent modelled representations of groups performing sacred or familiar actions, or vases on which appear modelled scenes from actual life. Such are the remarkable model of a sacred enclosure on pls. vii and viii, the representation of a ploughing scene on pls. ix, x, *a*, the fragmentary vase with ploughing oxen (pl. xviii, *a*, *b*), the double-necked jug with a row of figures grinding grain (pl. xxi), and finally the three-necked jug with a figure also grinding grain (pl. xxv, *e*, *f*). We need not interpret this as meaning that the actions shown by objects were regularly performed during their life by the persons buried in the tombs, as these actions might have been performed by anybody. With regard, however, to some of these actions we may say that in modern Cypriot villages there are special people for certain professions such as grinding grain or pressing olives, etc. Ploughing is a more widespread occupation, but there are always villagers known for their special capacities in ploughing. As to the representation of the sacred enclosure it may be conjectured that the persons buried in the tomb had some special connexion with ritual ceremonies.

Side chambers. These are (i) small and unimportant, in which case they are empty or contain a few vases, (ii) larger and used for burial purposes either of children (side chambers 23 A, and of tombs 38 and 41) or full-grown persons (side chambers 43 A, 46 A). Inside chamber 31 A two burials were made. The side chambers were used either at a period contemporary with the main chamber or

¹ In this connexion it is significant to remark that in tomb 22, where the model of the sacred enclosure (pls. vii, viii) was found, a bowl with birds and cups on the rim (pl. xiv, *d*) and a large ring vase were also found. It has, moreover, been noticed that ring or composite vases occur quite often in conjunction with vases ornamented with horned animals or birds, or in tombs in which special funeral rites were found.

at a later period. This is exemplified by the side chambers of tomb 35, which contained a few vases of a later period than that of the main chamber which belongs to period I.

The evidence supplied by the chambers proves that the tombs were family tombs.¹ If this is so, was the dromos left open after each burial, or was it filled in and reopened? Gjerstad² thinks that as long as the tomb was used for burials the dromos was probably left unfilled and that after the last burial it was filled with earth. When afterwards earth began to accumulate on the surface, tomb-stones served to mark the site of the tomb. In the case of the chamber tombs at Mycenae Professor Wace³ thinks that the dromoi were filled after each interment, and that large stones or other 'markers' were placed above the entrance of the tomb so that the site of the tomb might be easily identified. The stratification in the dromoi of the Vounous tombs was quite consistent with the contents of the chambers; all the sherds found in them were of Red Polished ware. This shows that the dromoi were finally filled at the conclusion of the last interment. But the question is whether the dromoi were filled after each interment and reopened for the next occasion. Tomb 10 throws important light on this problem; as said before (see *supra*, p. 24) the chamber of this tomb was found entirely empty, while the dromos was filled in with earth of the same quality as all the other tombs. Moreover, the door slab was found *in situ*. This shows that the tomb was never used, that after it was cut and prepared, the dromos was filled in and thus the tomb was ready for interments. But for one reason or another it was overlooked and left unused. If, therefore, the dromos of an unused tomb was filled in before any interment took place, there is more reason to believe that the dromos of a tomb once used was also filled up. This affords confirmation of Professor Wace's theory. As suggested by Dr. Gjerstad and Professor Wace the site of a tomb was probably identified through placing a large stone or 'marker', although no such 'markers' were noticed by us at Vounous. But surface stones are easily disturbed and broken.

On the other hand in the dromos of tomb 41 a later (fourth century B.C.) interment was found. This may be due to an accidental cause by which the dromos was uncovered and rendered visible.

¹ Gjerstad, *Studies*, p. 83.

² *Op. cit.*, 85.

³ *Chamber Tombs at Mycenae*, p. 128.

THE FINDS

I. POTTERY

The pottery found in the Vounous cemetery is all hand-made, and belongs to the following wares:—A. Red Slip ware; B. Red Polished ware; C. Black Polished ware; D. Plain White ware; E. White Painted ware; F. Black Slip ware.

A. *Red Slip ware**Type I.*

The clay is light coloured, well silted, and well baked, and the surface, which is smoothed up to resemble a buff slip, is covered with a thin light red wash which is easily flakable; brush marks are occasionally traceable.

Shapes:

Bowl (pls. XII, *d*; XLVI, 1), deep, with small flat base, sometimes pierced horizontally or with impressed circle underneath, converging sides, and oblong projections by the rim and projecting above it. Occasionally, small open spouts at the rim. The upper part of the outer face and the inner face are blackened. The decoration is incised, and consists of bands of chains of lozenges and parallel zigzags.

This is a new class; it is easily distinguishable by the thinness of the red wash which flakes away easily.

Both the quality of the ware and the shapes show definite survival from the Neolithic or Chalcolithic wares. The shape recalls the deep bowls of the Erimi pottery,¹ although the base tends to become smaller and smaller. The impressed circle on the base is also a feature already noticed in Erimi.² The patterns are also represented in the Erimi painted wares.³

Type II.

The ware is similar to that of Type I with the exception that the red wash is burnished. The shape is represented by a shallow bowl with string-hole projection at the rim. Decoration: incised.

B. *Red Polished ware*⁴

This ware represents the bulk of the pottery found in the Vounous tombs.

The clay is of light brown colour, well silted and hard baked. The surface is well smoothed up and is covered with a slip, which is usually dark red, but varies in shade from the darkest to the lightest red. The degree of thickness of the slip varies; it may be very thick (such as appears on the large vases) or very thin, showing brush marks. It is glazed and polished and quite often the marks of the polishing tool are traceable. Moreover, it may be very hard and adhering, or less hard and flaking easily; in many cases it is soft and easily scratched with the nail.

The decoration is: (*a*) applied in relief, mostly on the vases of large size and less frequently on those of smaller size. Decoration in relief is either skeuomorphic or

¹ *Erimi*, pl. xxvi, 1.

² *Ibid.*, fig. 11, c.

³ *Ibid.*, pl. xx, 1, 2, and elsewhere.

⁴ Myres, *Handbook*, p. 11; fabric I, A. Gjerstad, *Studies*, pp. 88 sq.; *S. C. E.*, i, pls. xciv ff.

naturalistic. The first type includes projections suggesting the method of fastening the handle,¹ and the second remarkable representations of quadrupeds, especially horned animals, stags, and wild goats. Moreover, snakes are very frequently represented, although in many cases they are stylized and turned into an ornamental *motif*. Human figures also occur. (b) Incised; the incisions are very often filled in with white chalk. Incised ornamentation is usually applied on vases of small size, but Vounous has yielded a large number of big incised jugs as well as a large bowl (pl. XII, c). Incised patterns are more usually geometrical, but naturalistic ones, especially horned animals, occur on big jugs in conjunction with very developed schemes of geometrical ornamentation.

Shapes:

I. Large Bowls

Type I. Large, deep bowls.

- (a) With small, flat, slightly raised base, convex sides, horizontal loop or horn-shaped handle, and tubular spout below the rim (pl. XLIV, 1, 2). Decoration nil.
- (b) With small, flat base, sides tapering to the base and turning in at the top. Handle missing and tubular spout.

These two types stand at the head of a long series of large, deep bowls, here described:

Type II. Large, deep bowls.

- (a) With small, flat base, sides converging or first diverging and then converging near the top, flat handle, and tubular spout below the rim (pls. x, b-e; XI, a, b, d; XLIV, 3, 4, 6, 8). The flat handle is the most characteristic feature of this type, which is best illustrated by the Vounous cemetery. It is attached either at the rim or just below it or sometimes half-way between rim and base. Its sides are either parallel or diverging and the ornamentation consists of snake ornament in relief, applied vertically or horizontally, of round buttons in relief, a ring round its middle, and quite often of impressed circles or other incised ornament.

The ornamentation of these bowls is often very elaborate. It consists of snake or rope ornament round the rim or pendent from it. Typical is the U-shaped pattern pendent from the rim (pl. XLIV, 6). Horned animals in relief on the upper part occur rarely. Moreover, birds modelled in the round may be placed on the rim (pl. x, b, c). Incised ornamentation is represented only by one example (pl. XII, c).

- (b) With rounded base, converging sides, horn-shaped handle, and tubular spout (pl. XLIV, 7). This type is more commonly represented by bowls with vertical loop handle at the rim, in which case the base may be slightly flattened (pl. XLIV, 5).

Type III. Large, wide bowl.

- (a) Pl. XLV, 1, with small, flat, slightly raised base, converging sides, and two ledge handles at the rim. Decoration nil. This type stands at the head of types b and c.
- (b) With small, flat base, diverging or converging sides, four ledge handles, two larger and two smaller (pls. XI, c, f; XLV, 2-4). The ledge handles are almost always com-

¹ Gjerstad, *op. cit.*, p. 106.

bined with ornamentation in relief, consisting of an inverted 'horns of consecration' pattern enclosing a snake (pl. XLV, 3), which in many cases is stylized. The ornamentation may be more complicated and the bowls on pl. XLV, 2, 4 are characteristic examples of this type. Here ornamentation in relief (snake or rope ornament) is used round the rim.

Naturalistic ornamentation is used on one example (pl. XI, e), on which appears a pair of bulls' heads with snakes pendent from their throat, all in high relief by the rim.

- (c) With flat base, diverging or more rarely converging sides, flat handle, and tubular spout (pl. XLV, 5). The flat handle is of the same kind as that in type II a. The ornamentation is of the same kind as that of this latter type.

Type IV. Large, wide bowl, with flat base, converging sides, ledge handle with vertical holes, and tubular spout below the rim (pl. XLV, 6).

Type V. Large, wide bowl, with rounded or flattened base, diverging sides, pierced projection, and open spout at the rim (pl. XLV, 7).

Of the above types of large bowls, types I a and I b appear to be the earliest. This is mostly evident from the shape, which may be connected with the shapes of deep bowls found at Erimi and belonging to the Neolithic I and Chalcolithic periods.¹ The actual Erimi types to which the types I a and I b may be compared are nos. 6, 7, 8, 19 on pl. XXVI. These types have a larger base, while in the Vounous types the tendency is for a smaller base; it follows naturally that the sides are not regularly convex, but taper to the base and then curve in at the top. The type of handle in the Vounous type I a is a new element, although loop handles are represented in Erimi.² Moreover, the slightly raised base in type I a seems to be a remnant of the base appearing on the bowl shown in *Erimi*, pl. XVII, 1.

Type II a is a further stage in the development of these large bowls. This type illustrates the full development of the large, deep bowls found in the Vounous necropolis. Their shape is evidently derived from types I a and I b, but a new type of handle, the flat one, is now introduced, although flat handles of a shorter type exist already on Erimi bowls.³ While type I was entirely undecorated, type II a is richly decorated, but the decoration is confined to the rim and the handle.

The U-shaped pattern (pl. XI, a) is reminiscent of a similar pattern on the large painted Erimi bowl no. 162,⁴ although here the ends of the U are in the shape of three fingers.

Type II b is merely a variation of the above type and the example on pl. XLIV, 7 shows a typical Erimi handle.⁵

Type III a seems to be the earliest of the wide bowls; its base, like that of I a, is flat and slightly raised and the sides are slightly convex. From this type developed the long series of large, wide bowls, with ledge handles and decorative bands pendent from them.

¹ *Erimi*, pl. XXVI, 7, 8.

⁴ *Ibid.*, fig. 4.

² *Ibid.*, fig. 8, a.

³ *Ibid.*, fig. 7, b, c, d.

⁵ *Ibid.*, fig. 10, c.

Type III c (pl. XLV, 5) is nothing else but a wider variation of type II a with which it has many elements in common, such as the handle, the spout, and the ornamentation.

Type V (pl. XLV, 7), i.e. the type of large bowl with open spout at the rim, does not occur in the Neolithic II or Chalcolithic periods, but a similar type with larger flat base often occurs in the Neolithic I period (Khirokitia), where it has been found in stone and in pottery (Reserved Slip ware). This, however, does not necessarily mean a direct connexion.

2. Small Bowls

The following types may be distinguished:¹

Type VI.

- (a) Hemispherical, with a small horn-shaped handle pierced horizontally through its lower part (pl. XLVI, 2).
- (b) Hemispherical, with a string-hole projection at the rim (pl. XLVI, 3);² in some cases the projection is below the rim and is in conjunction with a projection on it. This type of bowl is either red inside and out, or the inside and a band round the top outside are blackened. There is usually no decoration, but incised examples of this type occur frequently (pl. XLVI, 3 a).
- (c) Hemispherical, with four horned or rectangular projections on the rim, quite frequently in conjunction with string-hole projections. Incised ornamentation, generally geometrical (pl. XLVI, 4).
- (d) Hemispherical, with open spout and string-hole projection at the rim; additional projections on the rim are frequent. This is usually plain, but also occurs incised.
- (e) Hemispherical, with flat handle and tubular spout (pl. XLVI, 6). Incised.
- (f) Hemispherical, with vertical or horizontal loop handle and open spout at the rim (pl. XLVI, 7).
- (g) Hemispherical, with loop handle, horizontal or vertical, and tubular spout below the rim (pls. XLVI, 7 a).

Type VII.

- (a) Deeper bowl, with rounded base and four projections on the rim. The decoration is incised (pls. XIII, e; XLVI, 8).
- (b) With knob-base pierced horizontally. Incised. Ornamentation generally geometrical (pls. XIII, a; XLVI, 9).
- (c) With low foot pierced horizontally. Incised. Projections and small cups (pls. XIII, f; XLVI, 10) or animals on the rim (pl. XLVII, 6 a).

Type VIII.

- (a) Deep bowl, with small, flat, slightly spreading base, diverging sides, small string-hole projection below the rim. Black inside and outside round rim (pl. XLVI, 11). A more shallow variant occurs (pl. XLVI, 13).
- (b) With small, flat base, diverging sides, out-turned rim, small, open spout at the rim. This is illustrated by a remarkable example decorated with birds, a head of a horned animal on the rim, and snakes in relief (pls. XIV, b; XLVI, 14).

¹ The numerals continue those of the large bowls.

² Gjerstad, *Studies*, p. 90, 1.

Type IX. Conical bowls.

- (a) Conical bowl, with small, flat or pointed base, spreading sides. This type may be plain or incised (pl. XLVI, 15).
- (b) With small, flat base and projections on rim (pl. XLVII, 1).
- (c) Similar to previous; but with flat handle and tubular spout. The decoration is either incised or combined with relief ornament (pls. XIII, *b*; XLVII, 2).
- (d) Similar to previous; but deeper. This is blackened inside and outside round rim. Projections and small cups on the rim and horned animals alternating with snakes in relief on the upper part (pls. 1; XIII, *c*, *d*; XLVII, 4).
- (e) Similar to type *b*; but with distinct foot. Projection on rim (pl. XLVII, 3).

Type X. Shallow bowls.

- (a) With projections on the rim. Plain or incised (pl. XLVII, 6).
- (b) Similar to preceding; but with short, open spout (pl. XLVII, 5).
- (c) Similar to preceding; but with long, open spout. This variety is incised (pl. XLVII, 7).
- (d) Similar; with tubular spout and projections on rim.
- (e) Shallow bowl, with birds modelled in the round perched on the rim (pls. XIV, *c*, *d*; XV, *a*, *b*). On the examples on pl. XIV, *c* and *d* additional cups appear in front of the birds. Pl. XV, *a* is remarkable for the degree of naturalism in the modelling of the birds and for the bucranium appearing in relief on the upper part.
- (f) Shallow bowl, with three-legged base (pl. XLVII, 8).

Type XI. Deep bowl, with rim curving out and lid. Incised (pl. XLVII, 9).

Type VI a, b, i.e. the hemispherical bowl, has no immediate connexions with the pottery found at Erimi. Hemispherical bowls have, however, been found in stone at Erimi, and especially at Khirokitia where this type of bowl is common. It therefore appears that the hemispherical bowl which was in favour in the Neolithic I-III periods only in stone is now abundantly copied in pottery.

The handle of type VI a (pl. XLVI, 2) is a remnant from Erimi types on which horn-shaped handles are quite common (*Erimi*, pl. XV, 2). This places type VI a at the head of the series of hemispherical bowls. Another feature which occurs on the hemispherical bowls, but has no prototype in the Erimi pottery, is the open spout. This, however, is a common feature in the stone bowls found at Khirokitia. Type VI b and c are characteristic of the string-hole projection which has its predecessors in Erimi pottery (*Erimi*, fig. 6, A, B, C).

Type VI e (pl. XLVI, 6) is evidently a copy of large bowls but with flat handle and tubular spout. Type VIII a (pl. XLVI, 11), the deep bowl, with small, flat, spreading base and diverging sides, evidently follows the tradition of the Erimi bowls. So do types VIII b, IX b, and c (pls. XLVI, 12, 14; XLVII, 1, 2), (*Erimi*, pl. XXVI, 12). Type IX c is really a copy of the large bowls of type II a.

The shallow bowl is one of the most favoured types in the Bronze Age. In the Erimi period it occurs very rarely (*Erimi*, pl. XXVI, 9), but is a very common feature in Khirokitia where it occurs in great numbers in stone. The tradition of the shallow stone bowls continues in the Erimi period. The same applies to the shallow bowl with open spout, which is commonest in Khirokitia.

Type VI f (pl. XLVI, 7) shows a loop handle on the rim. Loop handles occur in the same way on Erimi bowls (*Erimi*, fig. 8, A), and quite commonly on stone bowls found in the Khirokitia settlement. Moreover, projections of larger size on rims occur on Erimi types (*Erimi*, fig. 8, C, D, E).

3. Goblets

Type I. With solid tall stem.

This is exemplified by pls. xv, *c*; LIII, 7. The stem is very tall and solid and has a spreading base. The cup is hemispherical and occasionally has an open spout and is decorated with a snake in relief.

Type II. With solid lower stem.

This is represented by pl. LIII, 8. The cup is deeper and the stem is much lower and is pierced horizontally. A remarkable example, with birds and cups in front of them on the rim, belonging to this type is shown on pl. xvi, *a*.¹

Type III. With hollow stem.

This type has a tubular stem and the cup has spreading sides (pls. xv, *d*; xvi, *b*; LIII, 10). On the rim are two birds looking into the bowl; small cups in the inter-spaces. Similar to this is the example on pl. LIII, 9, but the birds are more stylized and the bowl much deeper and closed.

4. Jugs

The following types of jug may be distinguished :

Type I. Big jugs, with tapering neck.

(a) Oval or globular, with tapering neck, flaring rim, and handle from neck to shoulder. Neck-line hardly marked. Snake ornament round the upper part (pl. XLVII, 10).

(b) Oval, with pointed or rounded base, tapering neck, flaring rim, knobbed handle from neck to shoulder (pl. XLVII, 12). The decoration is generally in relief and consists of snake ornament placed vertically on the neck, and round buttons on the upper part of the body. Moreover, horned animals (stags, wild goats) decorate the neck and the body. Among the most remarkable examples of this type are pl. xvii, *b, c, d*. Besides the ornamentation in relief scenes modelled in the round may be placed on the upper part of the body. Such is the fragmentary jug shown in pl. xviii, *a, b*; near the base of its neck appear two ploughing oxen. This jug was found in fragments, and the human figure as well as part of the plough have been reconstructed after the ploughing scene on pls. ix; x, *a*. To the same type belongs the jug on pl. xxiii, *a*, along the upper part of which are placed two cups and a juglet.

(c) Similar type to the preceding; but the neck is tending to be cylindrical. A second smaller handle is placed at the neck-base opposite (pl. XLVIII, 1). The decoration consists of rings in relief or incised bands round the neck, and bands pendent from the base of the neck. Moreover, naturalistic ornamentation in relief occurs. Such

¹ The type of short, solid stem (type II) appears already in Erimi (fig. 11, G, H), where the upper part of the goblet is missing.

appears on the jug on pl. xvii, *e, f* which is ornamented with a female stag feeding her young and a second stag on the opposite side.

The same type occurs double-necked. This is illustrated by some remarkable examples. Such is the jug, pls. xix, *d* and xx, important for the human figures appearing in relief on one of the necks and the horned animals appearing on the other neck; a bird is perched between the two necks. Another example (pls. xxi, *a-c*) shows a row of four figures modelled in the round, standing along a raised platform or oblong trough and grinding with querns on rectangular stones represented in relief. A semicircular ridge stretches from the one side of the trough to the other, defining the area in which runs the ground grain. On other parts of the same vase are a square trough and the lower part of a seated figure, and traces of other modelled objects or figures which are missing.

- (d) Similar type to preceding; but the neck is cylindrical and the body rather more oblong or pear-shaped, pl. xlviii, 2, 4. This type is either plain or decorated with lines in relief round the neck and straight bands placed vertically in between, or with round buttons in relief on the neck. Relief bands, pendent from the neck-base, may be placed on the upper part of the body. The jug on pl. xix, *e*, with juglets round the upper part, belongs to this type.
- (e) Similar type to preceding; but the outline of the neck is tending to be convex (pl. xlviii, 5). The decoration consists of relief rings or incised bands (straight or zigzag) round the neck and pendent from the neck-base.

Type II. Big incised jugs.

- (a) (Pl. xlviii, 6). Oval body, slightly raised pointed base, long tapering neck, flaring rim, handle from neck to shoulder. The incised ornamentation is geometrical and consists of zigzags, groups of lozenges, etc.
- (b) Type similar to preceding; but with rounded base and no neck-line (pl. xlviii, 7). The decoration consists usually of concentric circles and connecting bands forming net-work.
- (c) Type similar to preceding; but the neck-line is now marked. As a rule, the ware of this type is finer and the walls are thinner. The ornamentation is generally incised and consists of bands of parallel zigzags alternating with lozenges and groups of concentric circles with connecting bands forming network. Also concentric semicircles on either side of a horizontal band. A second handle may be placed at the neck-base, opposite the big handle (pl. xlviii, 8).

The same type occurs with two necks. This type is illustrated by two interesting examples. The first (pls. xxv, *d*; xlviii, 10) has a shallow cup on top of the handle, while in the space between the necks of the second (pl. xxv, *c*) appears the upper part of a bird. The same type occurs also with three necks (pl. xxv, *b*). A remarkable example of this type is illustrated by pl. xxv, *e, f*, on the junction of the three spouts of which appears a figure grinding with a quern. This figure is comparable with pl. xxi and shows how the Vounous potters could make use of every space for appropriate decoration.

- (d) Type similar to preceding; but the body becomes heavier below (pls. xxiii, *b*; xlviii, 9). The ornamentation, which is incised, shows a combination of geometrical

and naturalistic motives (pl. xxii, *b*). Along the upper part of the body are incised stags, with large groups of concentric circles in front of them. Below there is a large band of parallel zigzags and various motives in the interspaces which appear to be stylized natural objects.

The same type occurs double-necked (pl. xxiii, *c, d*). The necks are either parallel or diverging upwards. The decoration is for the most part geometrical and consists of groups of concentric circles and connecting bands forming network, large bands of zigzag, etc. Another favourite pattern consists of concentric semicircles on either side of a horizontal band; other geometrical patterns, bands of zigzags, groups of parallel strokes, etc., also occur.

The example on pls. xxiii, *d* and xxiv, *b* is ornamented with a very elaborate scheme of geometrical and naturalistic designs. This style is very similar to that of a single-necked jug on pl. xxiii, *b*, but has more brilliancy. On the upper part of the body are stags on either side of a large group of concentric circles, and below is a large group of zigzag lines. Moreover, on one of the points of the zigzag appears a pattern which suggests the upper part of a human figure with arms akimbo (pl. xxii, *a*).

A smaller variety of this type with shorter necks is shown on pl. xlviii, 11.

Type III. Jugs, with wider neck.

- (a) Oval, with small, flat base, tapering neck, flaring rim, no neck-line, handle from neck to shoulder. No decoration (pl. xlviii, 12).
- (b) Oval or globular, with small, flat base, tapering neck, flaring rim, handle from neck to shoulder. No decoration (pl. xlix, 1). A more developed type has a rounded base (pl. xlix, 2).
- (c) Oval, but heavier outline, with cylindrical neck, rim out-turned, handle from neck to shoulder. No decoration (pl. xlix, 3).

Type IV. Jugs, with cutaway neck.

- (a) Oval, with small, flat base, tapering cutaway neck, no neck-line, handle from neck to shoulder. Knobs on the neck on either side of the handle (pl. xlix, 4).
- (b) Oval or globular, with curving, cutaway, beak-shaped neck, and round base; handles from rim to shoulder. The decoration is in relief and consists of bands or knobs on the neck and the upper part of the body (pl. xlix, 5).
- (c) Pear-shaped, with two cutaway necks. Incised (pl. xlix, 5 *a*).
- (d) Oval, with wide, cutaway neck. Of this type three richly ornamented examples have been found. The ornamentation consists of relief snake ornament placed vertically on the neck, and of horned animals and snakes on the upper part of the body (pls. xvii, *a*; xlix, 6). Of particular interest is the example on pl. xix, *a, b* which shows magnificent stags. Pl. xix, *f* is interesting for the four animals, modelled in the round, placed on the upper part.

Type V. Smaller jugs, with wide neck.

- (a) Oval, with flat base, wide, cylindrical neck, curving-out rim, loop handle from rim to shoulder. This occurs plain and incised (pl. xlix, 8).

- (b) Type similar to preceding ; but with projection or horizontal loop handle on the upper part of the body (pls. XLIX, 9 ; L, 2).
- (c) Type similar to sub-type a ; but with horizontal, rising loop handle on the rim. This type occurs incised (pl. XLIX, 7).

If we examine the different types of jugs we see that those which remind us most of corresponding Erimi shapes are Types III a, b, and I a. These may be connected with the oval vessel, with pointed base, upward-tapering neck, and flaring rim (*Erimi*, pls. xv, 1 ; xxvi, 18). It must, however, be mentioned in the first place that the Erimi example is without a handle while the Bronze Age types have a loop handle, which appears to be an innovation. In other respects the two kinds of vessels have some typological characteristics in common ; such as the oval body, the tapering neck with no neck-line, and the flaring rim. The base of the Erimi examples is generally distinct and pointed, those of the Vounous ones is either small and flat or pointed. The variety, however, with flat base need not count very much against the connexion, as even if it does not appear in the Erimi examples the flat base is a characteristic feature of the Neolithic shapes and may well have been applied in the Bronze Age even to jugs.

Both types III a, b and I a are at the head of long series of types which occur in great abundance in the Vounous tombs and which are typical Bronze Age types. Types III a, b develop into type III c which has no longer the elegance of its predecessors. Type I a is at the head of the series of the jugs of type I b which are richly ornamented with snakes or horned animals. This type belongs to the flourishing period of the production of Red Polished jugs and is represented by a number of remarkable examples.

A further step in the development of type I b is type I c which occurs double-necked as well. The latter type is illustrated by the remarkable jugs on pls. xix, d and xxi, which are unique for the representation of human figures, in relief or in the round, engaged in different occupations.

Types I d and e show further stages of type I a, and are characteristic of the cylindrical or convex necks and the oblong or pear-shaped body.

Types II a, b are again reminiscent of Erimi types and stand at the head of a long series of incised jugs of type II c which are really a variation of types I a, b, but belong to a finer and more ornamented ware. Types II c, d include the two- and three-necked incised jugs of which some remarkable examples have been found.

Type IV a is an early one and may be connected with Erimi types, although the cut-away neck is a new feature. But the general outline is definitely developed out of the Erimi, corresponding to vessel *Erimi*, pl. xxvi, 18. This type develops into type IV b, with globular body and beak-shaped neck, while type IV c, with two necks and incised ornamentation, is a further stage in the development of this type. Type IV d represents the jug with wide, cutaway neck. This type is simply the counterpart of the jug with wide neck (type III b), but unlike the latter it is very richly ornamented with relief pattern.

Finally, types V a, b, c illustrate a jug of smaller size, with wide neck and loop handle from rim to shoulder, or on the rim.

In conclusion, it may be said that types I a, II a, b, III a, b, IV a are the earliest types, inasmuch as they have typological affinities with analogous vessels found in

Neolithic or Chalcolithic times. These types may also be considered as more or less contemporary. Types I b, c, II c, d form the next steps in the development, and illustrate the most productive and brilliant period of the Vounous cemetery, while types I d, e, III c belong to a further stage which shows signs of decadence.

5. Juglets

The following types may be distinguished :¹

Type VI. Juglets, with funnel-rim.

- (a) With flat base, converging sides, cylindrical neck, and handle from rim to shoulder. This type occurs plain (pl. LII, 6).
- (b) Pear-shaped or globular, with rounded base, long or low cylindrical or tapering neck, and handle from rim to shoulder. This type occurs almost generally incised. The ornamentation is invariably geometrical, bands of zigzags, concentric circles connecting bands, etc. (pl. LII, 7, 8).

Type VII. Juglets, with no distinct rim.

- (a) Globular, with cylindrical neck, handle from rim to shoulder. This type occurs either plain or incised, in which case the ornamentation is simple and consists of zigzags round the neck and the body (pl. LII, 9).
- (b) Globular, with tapering or cutaway neck, and handle from rim to shoulder. Plain.

Type VIII. Juglets, with cutaway neck.

- (a) Oval, with cutaway neck, flaring rim, handle from rim to shoulder. Decoration incised, concentric circles and connecting bands.
- (b) Oval or pear-shaped, with long, cutaway neck, handle from rim to shoulder (pl. LII, 11). This type occurs most commonly incised, and the incisions are invariably geometrical and similar to those on type VI b. Plain examples, however, occur (pl. LII, 10). Another variety of this type is pl. LII, 12, which occurs only once, plain.
- (c) Oval or globular, with long, narrow, straight or curved cutaway neck. This type occurs plain and incised. A variety of the type occurs with tripod base (pl. LII, 12 a).
- (d) Type similar to above; but with additional tubular spout. Plain or incised (pl. LII, 13).
- (e) Oval, with rather wide, long or very short, cutaway neck. This type is usually of somewhat coarse ware (pl. LII, 14).

Type IX. Juglets, with short, wide neck.

- (a) Oval, with distinct neck, rim curving out, and horizontal or vertical loop handle on the rim (pl. LII, 15).
- (b) Pear-shaped, with no distinct neck, but only out-turned rim, and vertical or horizontal loop handle at the rim. Plain or incised (pl. LII, 16).

It therefore appears that with some exceptions the juglets follow the types of the big jugs. Type VI a, i.e. the juglet with flat base and funnel-rim, is probably the earliest

¹ The numerals are in continuation of the big jugs.

type. Type VI b is a miniature copy of the big jug of type I b, although in the juglet the handle is placed from rim to shoulder. The juglet of type VIII a, b copies the big jug with cutaway neck (types IV a, IV b), while juglet VIII e is a copy of the large jug type IV d. The juglet with cylindrical neck (type VII a) copies jugs of type V a. Some types are, however, peculiar to the juglets, such as that with additional spout (type VIII d) and type IX b.

The greater part of the small jugs is ornamented with incised ornamentation, and forms a class of pottery which may be considered more decorative than utilitarian.

6. Amphorae

The amphorae may be classified as follows :

A. Large Amphorae.

Type I.

With globular body, flat, raised base, cylindrical neck, rim curving outwards, and knobbed handles from neck to shoulder. Plain or with buttons in relief on neck and shoulder (pl. L, 3).

Type II.

(a) With oval or globular body, flat or somewhat rounded base, tapering neck, distinct flaring rim; and handles from neck to shoulder. No ornament or round buttons (pl. L, 4, 5).

(b) Type as preceding; but with horizontal loop handles on neck (pl. L, 6).

Type III.

Oval body, with flat or pointed, rounded base, concave neck, and handles from neck to shoulder (pl. L, 7, 8).

Type IV.

(a) With oval body, flat base, cylindrical neck, rim turning outwards, knobbed handles from neck to shoulder. No ornament or round buttons in relief on neck and shoulder (pl. L, 9, 10).

(b) With oblong body tending to become irregular, flat, plain, or raised base, rim curving out, handles from neck to shoulder (pls. L, 11 and LI, 1).

B. Small Amphorae.

Type V.

Globular, with wide, tapering neck, two ear-lug handles on the shoulder. This type occurs only incised, and the upper part is blackened. The ornamentation is generally geometrical. Bands of zigzags, hatched lozenges (pl. LI, 5).

Type VI.

(a) With globular body, small, flat base, short, concave neck, and two small handles at the base of the neck (pl. LI, 6).

(b) Globular or oval, with flat or rounded base and small handles at the base of the neck (pl. LI, 7, 8).

Type VII.

- (a) Oval or globular body, flat or round base, long, cylindrical neck, rim curving outwards, small handles at the neck-base (pl. LI, 9, 10). This type occurs either plain or incised (pl. LII, 1). Of similar type is the amphora on pl. L, 1, with human figures on handles.
- (b) Oval or globular, with short, cylindrical neck and two small handles or pierced projections at the base of the neck (pl. LII, 2, 3).

Type VIII.

Globular, with upwards-widening neck and two horizontal loop handles at the neck-base. This type occurs only incised (pl. LII, 4).

Type IX.

Oval, with small, raised, flat base, cylindrical neck, and two handles from neck to shoulder (pl. LII, 5).

The only vessel found at Erimi to which the Bronze Age amphora may be compared is *Erimi*, pls. xvii, 5 and xxvi, 20. This is a vessel with flat base, converging sides ending in a rim curving out, and with two oblong projections on the upper part. The similarity is even more striking between the Arpera vessels found by Mr. Markides in 1915 (pl. xxxvii, *b*) and especially the first of these, which seems to represent a very early type of Bronze Age amphora. Nevertheless some elements observed on more developed Bronze Age amphorae are evidently remnants from pre-Copper period types not necessarily amphorae. Such elements are the flat base spreading into a flange, and the lack of definite neck-line observed on type I. Moreover, the wide, upward-tapering neck of types II a and b reminds us of the neck of the Erimi vessel pl. xxvi, 18. The cylindrical neck of type IV a seems to show a departure from the old prototypes. It must, however, be mentioned that the amphorae, probably owing to their purely utilitarian character, appear to develop very slowly, and tend to preserve the same typological elements which in many cases are given over by tradition.

Of the smaller amphorae type V seems to be the nearest to the Erimi vessel on *Erimi* pl. xxvi, 20, although the Vounous type has already developed a longer neck. The ear-lugs are, however, comparable to those of the Erimi specimen.

Type VI a has a low concave neck which again recalls the Erimi vessel pl. xxvi, 20, although the base of type VI a is much smaller and the body globular. Type VII a copies the corresponding large amphora, type IV a. So does type II which copies type IV b.

7. Bottles

The following types may be distinguished :

Type I.

Globular or pear-shaped, with tapering neck and small string-hole projection at the rim or at the base of the neck. Incised (similar to pl. LIII, 12).

Type II.

Globular or pear-shaped, with cylindrical neck, and no distinct rim. Incised (similar to pl. LIII, 5).

Type III.

Globular or pear-shaped, with tapering neck, funnel-rim pierced with two holes. Upper part blackened. Incised (pl. LIII, 2).

Type IV.

- (a) With flat base, converging sides, beak-shaped neck. Incised (pl. xxxix, a).
- (b) Type similar to preceding; but with narrower and shorter cutaway neck. Incised (pl. xxxix, c).
- (c) With flat base, cylindrical body, cutaway neck. Incised (pls. xxxix, b; LIII, 3).

Type V.

Horn-shaped, with flat base, and no distinct neck. Incised (pl. LIII, 4).

The bottles of types I-IV are actually juglets without handles. Of these the commonest is type III.

8. Cooking-pots

The following types may be distinguished:

Type I.

- (a) Oval body, with small, flat base, no distinct neck, but simple out-turned rim, and two handles from rim to shoulder (pl. LI, 2).
- (b) The body tends to be rather rounded; the base is rounded, and the neck is not distinctly marked.
- (c) Globular body, with no distinct neck, rim out-turned, handles from rim to shoulder.

Type II.

- (a) Oval, with small, flat base, short distinct neck, and handles from rim to shoulder.
- (b) Type similar to preceding; but with taller neck. Round buttons on neck and shoulder (pl. LI, 3).
- (c) With globular body and upward-tapering neck.
- (d) With oval body, and upward-widening neck (pl. LI, 4).
- (e) Similar to type c, with tripod base.

The shape of the cooking-pot type I a may be connected with the vessel found in Erimi and shown on *Erimi* pls. xvii, 5 and xxvi, 20. The oval body, the flat base, the lack of distinct neck, and the out-turned rim show evident points of comparison. The Erimi vessel has two projections on the upper part while the Vounous type has loop handles. Moreover, the base in the Vounous cooking-pot tends to become smaller and smaller. Type I a may be considered as the nearest to the Erimi vessel and therefore the earliest. Types I b and c have only the rim in common with type I a, while the body and the base become rounder. Type II a has a distinct neck and may be placed next to type I a, as their outlines are similar except for the indication of the neck. Types II b and c are variations of type II a and should not be considered as forming an evolutionary scheme.

The cooking-pot, like the amphora, is a purely utilitarian vessel, and like the amphora develops very slowly and at the same time preserves the original typological elements. It is, moreover, usually of a coarse ware and its surface is not polished.

9. Pyxides

The following types may be distinguished :

Type I.

Boat-shaped, with rounded base and flat lid. Holes through the wall near the mouth for attaching the lid. Incised (pl. LIV, 1).

Type II.

Shape similar to preceding, but with two horizontal loop handles on either side of the mouth, and two small cups projecting from the sides (pl. xxxvi, *b*). The ornamentation is incised and consists of a chain of lozenges and other geometrical design.

Type III.

Shape similar to preceding, but with rather flattened base (pl. xxxiv, *a*, *b*). This type is illustrated by some remarkable examples, such as pl. xxxvi, *a*, which besides the incised ornamentation is decorated with two human figures, the first a woman holding an infant in her arms and the second a male figure.

Type IV.

The shape tends to be globular. This type is illustrated by two remarkable examples (pl. xxxv, *a*, *b*). The first is ornamented with two pairs of birds back to back ; on the lid the representation in relief of two human figures (a man and a woman) joining hands. The second is also incised and is decorated with two pairs of birds looking at each other on either side of the mouth ; a series of holes is along the mouth for attaching the lid.

Type V.

With distinct flat base. Besides the incised ornamentation there are additional cross-like bands in relief (pl. xxxvii, *a* ; LIV, 2).

Erimi has yielded no shape of vase to which the pyxis may be compared. Khirokitia has, however, yielded a great number of stone vessels in which the pyxis shape may be easily identified.¹ The custom of adorning the sides of the pyxis with human idols has also a precedent in Khirokitia, where handles of bowls in the shape of flat human heads have been found.

10. Composite Vases

The following types may be distinguished :

Type I.

- (a) Two, three, or four hemispherical bowls, surmounted by a basket handle with angular or rounded top (pl. xxvi, *b*).
- (b) Two hemispherical bowls, with open spouts, with single handle perforated at the top.

¹ Schaeffer derives the pyxis shape from wooden prototypes (*Missions*, p. 34, note 6).

Type II.

- (a) Four hemispherical bowls, surmounted by a tall ladder-shaped handle, with one or two cross-pieces. Incised (pl. xxvii, *a*).
- (b) Similar to the preceding, but the handle has stepped sides. Incised or plain (pl. xxvii, *b*).
- (c) Four hemispherical bowls, with ladder-shaped, flat handle surmounted by an amphoriskos (pl. xxvii, *c*).
- (d) Shape similar to preceding. The top of the handle is surmounted by a human figure. On one example appears only the head with the neck set on the top of the handle (pl. xxviii, *a*).¹ On two other examples (pls. xxvii, *d* and xxviii, *b*), the whole body appears. The head with the neck, which is exceptionally long, surmounts the top, while the body is modelled between the sides of the handle. The example on pls. xxvii, *d* and xxx, *b* shows a figure of a woman holding an infant in the left arm. The legs are modelled in the round and are placed in the space between the two sides of the handle. The example on pl. xxviii, *b* shows probably a male figure.

Type III.

- (a) Two juglets, surmounted by a ladder-shaped handle. Plain (pl. xxxii, *b*).
- (b) Three deep cups, with cylindrical foot in a line surmounted by basket handle (pl. xxxii, *d*).

Type IV.

Juglet, surmounted by smaller one. Incised. Similar to pl. LV, 8.

The example on pl. xiv, *a* is decorated with birds perched on the neck and the handle of the lower juglet.¹

Type V.

- (a) Three oval juglets, with cylindrical necks joined to a common, long, tubular neck, with round or beak-shaped rim. Incised (pl. xxxi, *a*, *b*).
- (b) Three handleless globular juglets, the necks of which support a fourth juglet, with beak-shaped spout and handle. Incised (pl. xxxi, *c*, *d*).
- (c) Three gourd-shaped jugs, supporting with their necks a fourth jug with three necks. Smaller jugs, with two or three necks placed on the junctions of the three jugs. All these jugs and juglets communicate inside. Incised (pl. xxxii, *c*).

It therefore appears that there are two main types of composite vases: (a) that composed of two, three, or four small bowls which have a common, tall ladder or basket handle. This type of composite vase is probably copied from basket or wooden prototypes; (b) that composed of juglets in the shape of fruits hanging from a common stem. This class includes the type composed of three gourd-shaped juglets supporting a fourth, and the magnificent construction on pl. xxxii, *c* which is the most complicated of all.

¹ This vase was presented to the Cyprus Museum by the late Mr. L. Z. Pierides, who asserted that it was found in the Vounous cemetery by villagers.

11. Ring Vases

The following types may be distinguished :

Type I.

Composed of a hollow ring, with three or five bowls placed on the ring and communicating with it through their bases (pl. xxxiii, *a*).

Type II.

Composed of a hollow ring, supported by four legs : four or three bowls and a juglet on the ring and communicating with it as in the previous type (pl. xxxiii, *c, d*).

Type III.

Composed of a solid ring, supported by legs. Small cup placed on the ring. Fragmentary.

12. Table for Offerings

This is composed of a flat, rectangular table, supported by a tubular foot. Two cups and between them a juglet are placed on the table. Incised (pl. xxxiii, *b*).

13. Horns

Two models of horns, evidently of oxen, have been found in Tomb 36 (pl. xxxviii, *a*).

One of them is more curved than the other. They are both blackened, except for the point which is red. The decoration is incised and consists of bands of zigzags, groups of chevrons, lozenges, and hatched triangles.

Smaller horns of Red Polished incised ware have also been found (pl. xxxviii, *b, e*).

14. Bird-shaped vases

Type I.

Askos, in the shape of bird, with three legs (two missing) and cutaway neck and handle. Incised (pl. xxxix, *f*).

Type II.

With two legs, the fore one branching into two. Cutaway neck. Indication of tail. Incised (pl. xxxix, *d*).

Type III.

With one or two necks, basket handle, and a foot below. Incised (pl. xxxix, *g, h*).

15. Idol

Plank-shaped ; with rectangular body. Incised (pl. lx, 29).

16. Various Models of Red Polished Ware illustrating Scenes or Objects

I. *Model of sacred enclosure of Red Polished ware.*¹ This is no. 26 in tomb 22 (pls. vii, viii) and is a circular tray, 37 cm. across, representing an enclosure with a low wall all

¹ This was found broken into many fragments scattered on the floor in the tomb. It seems that the looters who visited the tomb, probably a long time ago, found this object not to their taste, which was for gold (in reality a great number of looted tombs contained important finds), and broke it into

round, 8 cm. high, and a doorway with raised lintel. The height of the doorway is 12 cm. On the inside of the wall, on the far side opposite the doorway, three figures, which appear to have horns, are represented in relief; their hands are extended and joined one to another, and from where they are joined hangs a snake. A semicircular ridge in relief, on the floor, starts from one side figure and ends with the other. On this ridge a figure with hands bent forward in prayer is kneeling. On either side of the group of the three relief figures and along the enclosure wall are low benches on which are seated figures, four on the right and two on the left. Next to the two left-hand seated figures is a figure holding an infant in the arms. This figure looks in the direction of the doorway. To the left is a standing figure looking towards the figure with the infant. Next to the latter and along the enclosure wall are two bulls (6-7 cm. long) in pens. A figure stands against the part of the pen on the left of the doorway and looks towards the animals. On the right-hand side of the doorway and along the enclosure wall are two more animals. The first is followed by a human figure: a similar figure must have stood behind the second animal, but it is missing. The centre of the enclosure is occupied by a group of six standing figures crossing hands on the front and forming more or less a circle, and by a high chair or throne (9 cm. high), on which a large figure with circular head-dress is seated. The back of the chair has three projections with hollow tops. There are two more conical projections on either side on the front of the chair. On the right-hand side of the door a small figure is trying to climb over the wall and get a glimpse of the scene inside the enclosure.

The first important question connected with this find is its structural form. It is a circular enclosure and is surrounded by a low wall. Our knowledge of the architecture, domestic or other, of the Early Bronze Age is at present rather limited. Gjerstad examined an Early Bronze Age III settlement at Alambra,¹ in which he cleared only one house, which shows that the fundamental principle in domestic architecture is the rectangle. This architectural principle seems to continue into the Middle² and Late Bronze Age periods.³ The round plan of the enclosure therefore does not conform with the existing evidence of the contemporary or immediately succeeding architecture. On the other hand if we examine the architectural principle prevailing in the pre-Bronze period we see that there exists considerable agreement. Our excavations at Erimi⁴ and Khirokitia⁵ have proved that the fundamental principle in architecture in the Neolithic

many pieces. The complete reconstruction of the enclosure was, however, rendered possible as all the fragments were found in the tomb. Two of the standing figures to the right of the throne were missing (probably the clay disintegrated), but as the feet were in their original place the figures were reconstructed after the other figures of the same group. A few parts of the enclosure wall were also missing as well as a few heads or parts of bodies of various seated or standing figures. The female figure with the infant was broken off its place in the same way as all the others. All evidence, however, showed that its original position was where it has been replaced. The same applies to the climbing figure whose place was clearly marked.

¹ *Studies*, pp. 19 ff.

² *Ibid.*, pp. 27 ff.

³ This is proved by the Swedish Excavations on the Idalion acropolis (*S. C. E.*, ii, 626) and by the French excavations in the settlement of Engomi (Schaeffer, *Missions en Chypre*, p. 109, fig. 46).

⁴ *Excavations at Erimi*, pp. 8 ff.

⁵ 'Preliminary Report on Khirokitia Excavations', *R. D. A. C.*, 1936, part I, pp. 82 ff.

and Chalcolithic periods is the circle. It is therefore probable that although the rectangular was used for domestic architecture in the Early Bronze Age, the circle, the traditional principle, was still used for constructions or enclosures of some sacred character. The fact that the Early Bronze Age tombs found at Vounous and elsewhere have a roughly circular outline may be attributed to the same tradition. In the Late Bronze Age temenos excavated by the Swedish Cyprus Expedition at Ayios Iakovos in the Famagusta district¹ the architectural remains were poor, but the area of the temenos was defined by a roughly circular floor, which, however, was not surrounded by any enclosure. Whether this roughly circular area shows the persistence of the old tradition we cannot say, especially as it does not seem to be corroborated by any other contemporary and more conclusive evidence. The important sanctuary excavated by the Swedish Expedition at Ayia Irini² which has its beginnings in the Late Bronze Age III, revealed that in this early stage of the cult the sanctuary consisted of a complex of rectangular houses, built in isolated blocks along the sides of a large, open court. Idalion³ also revealed a cult-room, but its shape, as well as that in use in the whole settlement, is also rectangular.

The circular shape of our enclosure remains therefore isolated in the history of Bronze Age architecture. But as explained before, it can be connected with the circular constructions of the Neolithic and Chalcolithic periods.⁴

The architectural connexions between the type of the Vounous enclosure and the Neolithic type of structure, especially that occurring at Khirokitia, are supplemented by the similarity of the functions performed by the structures brought into comparison. The Khirokitia large structures discovered in 1936⁵ and 1938 (of these the latter are still unpublished) do not seem to have been simple dwelling-houses, but, what is more evident, places for burying important people. In each of these large houses more than two, sometimes up to four, dead were buried, in some cases with offerings and other rituals. As will be seen, the ritual performed in the Vounous model is mainly in honour of the chthonian deities, a fact which shows survival of the old Neolithic circular houses and of the ritual which must have been performed inside, or more probably outside, the corridor which quite often surrounded these houses. And it must be mentioned that the several superimposed layers of carbonized bones and ashes found outside these houses show that rites and sacrifices must have taken place there.

The wall which surrounds the enclosure is low and shows no superstructure. The Vounous enclosure therefore appears to represent an open-air courtyard, enclosed by a circular wall with a main doorway. The custom of using open courts as sacred enclosures is represented by other examples found in Cyprus. Thus the Ayios Iakovos temenos of the Late Bronze Age, mentioned before, consists of a roughly circular floor on which different small constructions, pits, or ritual basins are placed. There is no enclosure or any other construction showing that the rites were performed in closed areas. This does not seem to be the case at Ayia Irini, where the Late Bronze Age III

¹ *S. C. E.*, i, 356 ff.

² *Ibid.*, ii, 642 ff.

³ *Ibid.*, ii, p. 626.

⁴ M. René Dussaud (*Syria*, xiii, 226) thinks that the circular plan of this enclosure is reminiscent of the temenos of the Acropolis at Mycenae, where it is surrounded by a circle of slabs.

⁵ *Illustrated London News*, 26th December 1936, pp. 1174 ff.; *R. D. A. C.*, 1936, part I, pp. 82 ff.

sanctuary consisted of a complex of houses, some used for the cult, some as living-rooms for the priest, and others as store-rooms. But the sanctuary which was built immediately on top of the covered-up Late Bronze Age III sanctuary was of quite a different kind. It was an open temenos of an irregular, oval shape, surrounded by a peribolos wall of red earth. A low altar was built in the temenos, and a libation table for fluid offerings was placed close by.¹ This second Ayia Irini temenos seems to belong to the type represented by the Vounous model.

That the enclosure wall of the model was low is further proved by the fact that a figure is trying to climb up the wall to see what is happening inside the enclosure.

The most important part of the interior of the temenos is the group of the three figures which are represented in relief on the inside face of the enclosure wall on the farthest part, opposite the doorway. These figures extend their hands and from each point where the hands join hangs a snake. There are two snakes, the left hand of the left-hand side figure and the right hand of the right-hand side figure remaining extended. A few observations should first be made with regard to the form of these three figures. The only one which has an indication of a face marked in relief in the same way in which the face is indicated on figures modelled in the round is the central figure. This is, moreover, thicker than the two side ones. From the right-hand side of the head starts a slightly wavy ridge which partly surmounts the top of the enclosure wall and which looks like a horn. The same appears to have existed on the opposite side, but is partly missing. The figures on the right and left are thinner and their heads are different. There is no indication of a face in relief as on the central figure. From either side of the top of the figures, however, emerges a projection. Thus their tops appear T-shaped, but the horizontal stroke of the T curves in the middle. The top of the left-hand figure is partly missing, but that of the right-hand figure is complete, with the exception of the ends of the projections which are chipped off.

One of the striking features about this group of three figures is that they are represented in relief and not in the round. There are human beings to the right and left of the group, seated on benches, but these are modelled in the round. The fact that the group of the three figures with the snakes is represented in relief shows that their nature was meant to be different from that of the ordinary human beings. M. R. Dussaud,² who emphasized this difference, suggests that these three figures are idols representing chthonian deities and that the snakes are attributes of these chthonian deities.

We have seen that only the central figure has an indication of a face similar to that on human figures appearing in the enclosure. But one remarkable feature is that from the heads of all three figures emerge projections longer and wavy or shorter and less wavy. It is naturally difficult to interpret these projections otherwise than by assuming that they represent horns. These figures would therefore represent human beings with heads in the shape of a horned animal. We are, of course, not in a position to say of what animal these horns are, owing to the imperfect state of preservation of that part of the tops of the figures. The preserved horn of the central figure, however, is long

¹ *S. C. E.*, ii, 822.

² *Syria*, xiii, 224. Sir Arthur Evans (*Pal. of M.*, iv, p. 166, note 2) considers the group of the three figures holding snakes as 'a kind of double table with two ascending snakes'.

and wavy and may easily be considered as the horn of a bull. But those of the side figures are not easy to identify. But if we consider that the bull played a considerable part as a sacrificial animal (see *supra*, pp. 99 ff.) offered in tombs, that it appears in the enclosure itself, and that it is often represented on vases in conjunction with the snake (see pl. xi, *e* and xxxviii, *d*), we may be led to suppose, with a considerable degree of certainty, that the horns emerging from the heads of the figures in relief are bulls' horns. It may be added that the votive models of bulls' horns (pl. xxxviii, *a*) were found in tomb 36, i.e. the tomb in which the large bowl with the bulls' heads and snakes pendent from their throats (pl. xi, *e*) was also found.

Such creatures partaking of human and animal forms existed both in the Eastern and in the Western worlds, where different opinions concerning their nature prevailed.¹ The Minoan Minotaur,² who has a human body and a bull's head, seems to be the nearest parallel to the figures appearing on the Vounous enclosure wall. A striking comparison is, however, offered by a class of Minotaurs found in the Cypriot Ayia Irini temenos. There, in the early archaic period, appears amongst the votive offerings a class of terracotta figures which represent 'Minotaurs', i.e. beings composed of a bull's body and a human torso and head.³ Some of these Minotaurs have horns on the head and others are entwined with snakes;⁴ one of them⁵ even holds up with his hand a snake by the side of the head. These half-human, half-animal creatures are interpreted as inferior divinities, or satellites of the deity worshipped, and therefore, as Sjöqvist says, 'representations of the swarm of nature daemons which are reduced to the position of attendants on the single god when such a god was created out of the mass of daemons'.⁶ Moreover, they are considered as an indication that for the strictly theriomorphous conception of the deity an anthropomorphic one had been substituted.⁷

In spite of the fact that the Ayia Irini Minotaurs differ from the relief figures of the Vounous model in that the first have a bull's body and a human head (although horned), while the second seem to have a human body and a bull's head, we have to point out the remarkable coincidence of the creature with partly human, partly horned animal's body, and of the snake appearing on the relief representation on the inside face wall of the Vounous enclosure and in the Minotaur statuettes of the Ayia Irini temenos. In the latter the snakes entwine the body of the Minotaurs, while the heads of the snakes

¹ G. Contenau, *Manuel d'archéologie orientale*, t. 1, pp. 283 ff.; Dussaud, *Civilisations préhelléniques*, p. 384; M. Ebert, *Reallexikon der Vorgeschichte*, 8. Band, pp. 195 ff. (Mischwesen); also E. Sjöqvist, 'Die Kultgeschichte eines cyprischen Temenos' (*Archiv für Relig.-Wissenschaft*, xxx, 3, 4, p. 333).

² *B. S. A.*, vii, 1901, fig. 7 b, c.

³ *S. C. E.*, ii, 822, pl. ccxxviii. Also Sjöqvist, *op. cit.*, pp. 333 ff.

⁴ *S. C. E.*, *op. cit.*, pl. ccxxviii, 1, 2, 5. The horns of the example 1, 2 are missing.

⁵ *Ibid.*, pl. ccxxvii. Here I may mention a stone slab (pl. xliii, *c*) which was found in a built tomb near Curium, where it must have been placed above a doorway into an inner chamber in a similar way as is seen in the Tamasos tombs excavated by O. Richter. This slab represents a kind of 'window' similar in form to those found in ivory in Nimrud, Arslan Tash, and other sites (see *Iraq*, ii, 2, p. 184 and pl. xxiii, 3). On the lower part of the outer frame appears in relief a small human figure lifting towards his head, with either hand, the heads of two enormous snakes.

⁶ See also Nilsson, *Minoan-Mycenaean Religion*, p. 328.

⁷ Nilsson, *op. cit.*; Contenau, *Manuel d'archéologie orientale*, i, 283.

are placed on the top of the head of the Minotaurs; in the Vounous enclosure the snakes hang from the joined hands of the figures.

Let us now proceed to the examination of the meaning of the two attributes suggested by the group of the three figures, i.e. the bull and the snake. Sjogvist in his study of the Ayia Irini cult¹ gave a comprehensive résumé of the different ideas connected with the bull as a divine creature on the Asiatic and Egyptian mainland. The bull symbolized the fertilizing force of nature and as such it appears to have been also worshipped in Cyprus. Both the Idalion cult-house and the earliest phase of the Ayia Irini temenos testify to the existence of this bull worship. In these cult-houses terra-cotta statuettes of bulls were found. These statuettes are not cult-objects, but simply ex-votos indicating that the deity was conceived in the shape of a bull. It is, therefore, natural to assume that the bull suggested by the figures in relief on the Vounous enclosure wall and the other finds from the Vounous necropolis are attributes of the fertility god. Sjogvist has also given in the same publication² a résumé of the different attributions of the snake on the Asiatic and Egyptian mainland as well as in Crete and Greece proper. The snake is either a 'Heilgott' or an enemy of the light and therefore the origin of evil, or an astral god, or more commonly a house-god or lastly a chthonian deity connected with those under the earth.³ The latter attribution is closely connected with the qualities of the snake as a god of fertility.⁴

In Cyprus the snake already appears in the Early Bronze Age, during which it is represented in relief most frequently on the Red Polished vases offered in tombs. The meaning of these representations of the snake seems to be connected with a cult of the chthonian deities⁵ and is now strengthened by the discovery of the Vounous model, which, as will be seen later, represents mainly a rite in honour of the chthonian deities.

But what now appears is that the snake is already found in Cyprus in conjunction with the bull in the Early Bronze Age. We see that the figures represented in relief on the enclosure wall, which we considered, on quite sound grounds, to be human figures having bulls' horns, hold snakes. Moreover, we see that the bull's head occurs on other objects in conjunction with the snake. A prominent example is the large bowl on pl. XI, *e* and the handle on pl. xxxviii, *d* on which both the head of the bull and the snake appear in relief.

It therefore appears that the snake, already in the Early Bronze Age, is not only an attribute of the chthonian deities but is also connected with the fertility cult, and as such appears in conjunction with the bull, another attribute of the fertility god. This second quality of the snake is therefore not an introduction dating from archaic times as suggested by Sjogvist, who based his theory on the Ayia Irini material. Moreover, the three figures in relief on the Vounous enclosure wall show that the transition from zoomorphism to anthropomorphism in religious beliefs did not take place, as Sjogvist suggested, in early archaic times, but on the contrary at a much earlier period.

¹ *Op. cit.*, pp. 319 ff. See also M. Ebert, *op. cit.*, 12. Band, 438 ff., and R. Dussaud, *Civilisations préhelléniques*, p. 394.

² *Op. cit.*, p. 331, see also M. Ebert, *op. cit.*, 11. Band, p. 266.

³ Contenau, *Manuel d'archéologie orientale*, i, 281.

⁴ Nilsson, *The Minoan-Mycenaean Religion*, p. 279; Frankfort, *Cylinder Seals*, pp. 119 ff.

⁵ Dussaud, *Syria*, xiii, 224; Sjogvist, *op. cit.*, p. 332.

The remarks made about the nature of the deities suggested by the group of the three figures represented in relief on the Vounous enclosure wall and by other representations occurring on different vases, lead to the examination of the question whether the Vounous enclosure shows a ceremony of funerary meaning only, or whether it shows a ceremony of wider character, e.g. in honour of the gods whose attributes appear on the relief group. The Vounous enclosure was found in a tomb and its connexion with the cult of the dead seems inevitable. That a cult of the dead was practised in the Early Bronze Age and particularly in the Vounous cemetery seems to be fairly established. Our description of the tombs has shown that animal sacrifices took place in the tombs or rather that sacrificed animals were laid with different bowls on the rock opposite the dead. Tomb 13 and especially tomb 36 are typical of this sacrifice. Tomb 36, moreover, contained amongst the numerous finds a good number of vases of which the decoration or the shape bear reference to sacrifices and rites. A great number of tombs, especially of period II, contained large bowls in which bulls' bones, and smaller bowls full of small bones, were found. That sacrifices formed part of ritual is also proved by the presence of bulls in the enclosure. If, then, the rite represented in the Vounous enclosure represents one of the sacrifices performed in honour of the dead, why is a suggestion also made of the bull, who would be a god of fertility? In other words, why do the figures represented in relief have horns as well as hold snakes? This seems to represent the same problem as that of the Ayia Triada sarcophagus on which the cult of the dead appears in conjunction with the divine cult. The solution of the Ayia Triada sarcophagus problem proposed by M. Dussaud and later by Professor Nilsson¹ is that the dead were deified and consequently worshipped in the forms of the divine cult.

It is therefore possible that the ceremony represented in the Vounous enclosure is mainly intended for the chthonian deities whose attribute is the snake. But as the snake, the attribute of the chthonian deities, was also connected with the cult of fertility, the associate god, the bull, is also suggested by his attributes or rather by creatures with human body and horned head, who belong to the swarm of daemons attending on the god.² Hence the presence of the figure kneeling in an attitude of prayer on the ridge which defines a semicircular area, probably the altar,³ in front of the three figures. Hence also the attitude of prayer in all the other figures present at the ceremony.⁴

The persons seated on benches on either side of the representation in relief as well as the five figures standing near the throne possibly participate in the rite. The big

¹ Dussaud, *Civilisations préhelléniques*, p. 410; Nilsson, *The Minoan-Mycenaean Religion*, p. 378.

² The theory concerning the fertility character of the ceremony is corroborated by the fact that on almost all the male figures attending the rite, the genitalia are marked. This may be brought into connexion with some of the Minotaur figures, found at Ayia Irini, with marked genitalia.

³ The custom of defining with a ridge in relief an enclosure of some sort appears to have been quite frequently used by the Vounous potters. Thus on the double-necked jug on pl. XXI, *a-c*, on which a group of figures grinding grain appears, the trough or cavity into which the ground grain flows is marked by a ridge in relief.

⁴ In some of our preliminary accounts published on this enclosure we considered the woman holding the infant as symbolizing the Mother-Goddess. This theory is here abandoned, see p. 173.

person seated on the throne is certainly an important one. M. Dussaud¹ thinks that he represents the person in whose honour the ceremony takes place, possibly the dead person himself. The head-dress of the figure represents, however, a special feature. It appears to be a cloth wrapped round the head. It may not be out of place to compare this head-dress with a similar one appearing on some terracotta votive statues in the Ayia Irini temenos.² Here the head-dress consists of a rope wound many times round the head.

In conclusion it may be said that this important find reveals for the first time the existence in Cyprus in the Early Bronze Age of religious beliefs involving a cult of chthonian and fertility deities of which the attributes were the snake and the bull, and that rites and sacrifices were performed in special enclosures. The beliefs concerning the chthonian deities draw their origin from early Neolithic times during which, as the Khirokitia excavations prove,³ large circular enclosures of exceptional character, used for burials connected with special rites, were constructed. How the Khirokitia funeral rites developed during late Neolithic times we are not in a position to say in great detail, owing to the limited area excavated at the site of Erimi. But both this site⁴ and the Neolithic site of Karavas⁵ revealed pit-shaped graves in which some kind of rite is indicated. The bodies were placed on animal's bones or stag's antlers, a fact which shows that some sort of funeral rites was also performed during the late Neolithic or Chalcolithic times. In the Early Bronze Age the funeral rites of Neolithic times took an important development. Moreover, symbols or attributes such as the snake were introduced, probably owing to increased and developed connexions with the Asiatic mainland. In addition other cults, and in particular that of fertility, were introduced and a symbol connected with it, the bull, was adopted. This again may be due to the relations of Cyprus with the Asiatic mainland, but it may also be due to a natural local evolution of the primitive Cypriot beliefs.⁶

It is, moreover, worth noticing that the attributes occurring in Cyprus appear also in Minoan Crete, where the bull, the Minotaur, and the snake also occur. There is no necessity to think that one of these countries was influenced by the other: as noticed in connexion with the Asiatic affinities, the resemblance may be due to coincidence and spontaneous evolution.

II. *The significance of the bird appearing on different vases.* On a number of vases found in the Vounous tombs appears a bird modelled in the round. These vases belong to three main classes, (a) vases on which the bird occurs in connexion with other attributes, the bull or the snake, (b) vases on which the bird appears together with attributes and representations of human figures, and (c) vases on which the bird appears in connexion with no other attributes. The first class includes a very important bowl (pl. xiv, b). On this bowl appears first the head of a horned animal which is difficult to

¹ *Syria*, xiii, 225.

² *S. C. E.*, ii, pl. ccxiv.

³ *Illustrated London News*, 26th December 1936, pp. 1174 ff.; *R. D. A. C.*, 1936, part I, pp. 82 ff. The 1938 excavations at Khirokitia revealed more large circular structures which appear to be intended for burial purposes. The 1939 excavations at the same site have moreover revealed an important circular house which throws considerable light on the interpretation of the Vounous model. See Appendix I.

⁴ *Excavations at Erimi*, p. 11.

⁵ *Ibid.*, p. 74.

⁶ Contenau, *Manuel d'archéologie orientale*, i, 304, 306.

identify. The horns are curved, the points being downwards, and the muzzle is rather pointed. If we recall the fact that this bowl was found in tomb 36, in which the large bowl on pl. xi, *e* with heads of bulls and snakes pendent from their throats and the two models of bulls' horns (pl. xxxviii, *a*) were also found, we may be led to suppose that the horned head on the bowl under description is of a bull as well.¹

Besides the horned animal's head, two birds looking outwards appear on either side and, on the upper part, two snakes in relief, on either side of the spout. If the horned head is that of a bull, we have here the two divine attributes (the bull and the snake) appearing on the same bowl. This would permit us to suppose that the bird appearing on the rim of the same bowl represents a third attribute.

Of more documentary character is the second class, which includes first the double-necked jug on pls. xix, *d* and xx. On one of the necks of this jug appear in relief two human figures, a man and a woman indicated by the breasts. The man puts his left arm round the woman's neck while, with his right hand, he touches the body of the woman a little below the abdomen. The woman joins her hands on her abdomen. On the same neck, behind the human group, a head of a horned animal is represented in relief (pl. xx, *b*). On the other neck, on the side corresponding to the human group, appears an animal with four horns, while on the back appears again a head of a horned animal (pl. xx, *b*). Between the two necks there is a bird modelled in the round, and in front of it, placed on the upper part of the handle, is a small cup. The bird appears to drink or eat from the small cup. Here we see that the bird, which occupies a prominent place, is found in some connexion with a group of a man and a woman, the attitude and nature of which suggest fertility. Moreover, we see that the necks of the vase are adorned with a horned animal and heads of horned animals of which one may be a bull's head.²

Of even more special interest is the pyxis (pl. xxxv, *a*). On either side of the mouth appear two birds, while on the lid a group of human figures, a man and a woman, both indicated by their genitalia,³ are represented in relief. These figures seem to join two of their hands; these, with the other two hands, seem to form a continuous wavy band in relief running through the upper parts of the human figures. We have here, therefore, an unmistakable association of the bird with the group of human figures, the man and the woman, in whom again the idea of fertility is inherent.

We therefore see that the bird occurs either associated with horned animals (whether bulls or others) and the snake (an unmistakable attribute) or with human figures associated with horned animals, bucrania, or other horned heads; and lastly with only human figures, who by their nature and attitude are related to fertilization.

¹ The alternative would be a ram, but no reasonably identifiable rams appear on any of the vases found in the necropolis of Vounous. All the animals besides the bull represented in relief on the Vounous vases have rather long bow-shaped horns with the exception of course of the stags.

² Detached animals' heads occur also on different objects in Minoan Crete. They are interpreted as representing heads of sacrificed animals (Nilsson, *The Minoan-Mycenean Religion*, pp. 195 ff.).

³ The lid of this pyxis is detachable, but there is very little doubt that it belongs to the pyxis. This is indicated by the size and the holes on the sides of the lid corresponding to those along the mouth of the pyxis. In the same tomb (tomb 37) one more pyxis (pl. xxxv, *b*), again with birds on either side of the mouth, was found. Even if the lid belonged to the latter pyxis, the association of the lid bearing the human group and the pyxis with birds is inevitable.

In the interpretation of the model of the sacred enclosure where the bull and the snake appear, I mentioned that on most of the figures attending or partaking in the ceremony the male genitalia are marked and that, moreover, a woman holding an infant also appears. These two facts were brought into connexion with the fertility nature of the cult. Now we see that the fertilizing power of human nature is brought into connexion with the bird, which may be another attribute in addition to the bull and the snake. It is, therefore, possible that it is in this connexion that it appears on the bowl (pl. xiv, *b*) together with the snake and the horned head (probably bull's), and especially on the double-necked jug (pl. xix, *d*) and the pyxis (pl. xxxv, *a*), where its meaning is more clearly suggested.¹

The third class of vases decorated with birds includes a number of small hemispherical bowls (pls. xiv, *c*, *d*; xv, *a*, *b*), large bowls (pl. x, *b*, *c*), and stemmed goblets or kylikes (pls. xv, *d*; xvi, *a*, *b*). The birds appearing on the rim of bowls, small or large, may be simply of ornamental character. On two examples, however, the bird is not the only decoration. These examples are a small bowl (pl. xv, *a*) on which a horned head, probably a bucranium, appears in relief below the rim; the other is the large deep bowl (pl. x, *c*) with four birds on the rim, two looking inside and two outside. Below the rim snakes also occur, but in addition to the snake rope ornament is used. There is no reason to think that the snakes are anything else than an ornament appearing next to other ornament, or to attach to the birds any symbolical meaning. The same may be said of the birds appearing on the kylikes and of the upper part of the bird placed between the two necks of the incised jug on pl. xxv, *c*. It is quite possible that the different attributes developed into mere ornamental *motifs*.²

III. *Model of ploughing scene of Red Polished ware* (pls. ix, *a*, *b*; x, *a*).³ The circumstances of the discovery of this remarkable piece are as follows. Between our two seasons, 1931 and 1932, the Kyrenia police had caught villagers from Kazaphani plundering tombs. Among the broken pottery sent to the Museum by the police was a fragment of the flat table belonging to this model. Having noticed this we hastened to Vounous, and through the help of the policeman who caught the plunderers we were able to trace the tomb, clear it, and find the whole of this model in many fragments and thus reconstruct it.

The model resembles a table supported by five legs, two in the front, two at the back, and one in the middle. The dimensions are: length 0.41 m., width 0.19 m. Height of the legs 0.14 m. On the table are two pairs of oxen ploughing, each followed by a human figure. The plough is composed of a yoke resting on the bulls' necks, a straight beam, a handle which curves at the top, and a share beam which is partly stuck into the earth. On the left-hand side of the first ploughing group two figures, who seem to swing an oblong, trough-shaped object, are standing. Behind is an animal followed by a human figure. On the back of the animal, traces of a saddle are noticeable.

The meaning of this scene is clear enough. A whole family are working in the fields. Two members (evidently men) are busy ploughing, while two other members (possibly women) are swinging a trough-shaped object, the interior of which appears as

¹ The bird in Minoan Crete occurs as a manifestation of the god: see Nilsson, *The Minoan-Mycenean Religion*, pp. 285 ff.

² *Ibid.*, p. 199.

³ *Man*, August 1933, p. 134.

an oblong heap. The meaning of the action performed by these figures is quite possibly in connexion with the agricultural work carried out by the ploughing groups. They probably carry in a trough or a cloth the grain to be sown.¹ The animal behind, followed by another figure, carries something to the people who work in the field. It probably conveys grain or food. Such scenes are frequent in modern Cyprus, where quite often the whole of the family camps under a tree near the field where the male members of the family may be ploughing. Frequently one of the grown-up children serves, with a donkey, as carrier of provisions, grain, water, or any other necessary object.

The scene represented by this group is of outstanding importance as it gives a living picture of an important part of Early Bronze Age life in Cyprus. We have seen that the model of the sacred enclosure gave us an ample idea of the religious beliefs and the rites of those times. Other vases bear modelled representations of domestic life and especially grinding. The present scene depicts the out-door life, especially the agricultural side, very fully and shows that in the Early Bronze Age the plough was already in full use and that cultivation of the fields was done systematically.² It is, moreover, proved that the character of the Vounous culture was profoundly agricultural and pastoral. The latter character is especially emphasized by the great numbers of large milk-bowls and the marked tendency of the potters to decorate their vases with horned animals and others, probably goat, sheep, etc.

This scene is also important because it reveals a very early type of plough. This belongs to the composite plough, *πηκτὸν ἄροτρον*, as Hesiod³ calls it. It is composed of a yoke, a beam, a handle, and naturally of a share. In our representation only the first three appear, the share being stuck into the earth. This plough was evidently made of wood. Hesiod who, besides the composite plough, speaks also of the simple one (*αὐτόγνον*) recommends the cultivator to have both prepared in his house. He enumerates the different parts to be assembled and recommends special wood for each part.

The model of the plough represented on our scene does not allow us to identify the method by which the different parts were fixed together. It is, however, apparent that the beam was of a different piece from the yoke and possibly the handle. The beam is placed over the yoke and it appears that where it overlaps the latter it is thinner and probably curved or hollowed underneath to fit the form of the yoke. There is no indication of any method of attachment, but we may conjecture that the two pieces were tied with leather straps. How the lower parts of the handle and the beam were fastened together on to the share beam we do not know. On an example of a Greek plough⁴ they both seem to fit into holes in the share beam. In the Vounous model the bottom of the handle and of the beam join together. It is possible that the beam and the share beam formed one part, i.e. they belonged to a hooked branch similar to that of the simple plough⁵ and that the handle was a separate piece and was fixed on the elbow of the hooked part.

¹ In one of my preliminary articles I suggested that the two figures are swinging an infant in a cradle, a scene quite familiar in open-air life in modern Cyprus.

² For the early traction-plough see C. W. Bishop in *Antiquity*, Sept. 1936, pp. 261 ff.

³ *Ἔργα καὶ ἡμέραι*, 433.

⁴ Daremberg and Saglio, *Dict. des ant. grecques et romaines*, i, 354, fig. 431.

⁵ *Ibid.*, p. 353, fig. 429.

It is not certain whether there was a separate metal plough-share, but this is improbable, as so far no plough-shares dating from the Early or Middle Bronze Age periods have been found. The only Early Bronze plough-shares known from Cyprus come from the foundry-site at Engomi¹ in the Famagusta district and date from the Late Bronze Age. We may therefore conclude that, unless new discoveries prove the contrary, there were no metal plough-shares in the Early Bronze Age. It is possible that if the beam was hooked at the end the shorter leg of the hook played the part of a plough-share.²

IV. *Model of dagger and sheath* (pls. xxix, a; LVI, 7, 8). These are of Red Polished ware, but blackened except for the points. The dagger blade has a well-marked mid-rib and is short. It is not clear whether it copies a dagger of the usual shape (pl. LX, 1-3) with hooked tang, or whether it only copies one of the knives of types I-II (pl. LX, 4-7). The latter alternative seems to be more probable, although the mid-rib is much more pronounced than on the usual bronze knives. The handle, which was possibly of wood, follows first the lines of the blade, then it expands to two thick projections continued by the top, which is flat, widening upwards and at right angles to the blade. Round the lower part of the handle is a double incised line; on the spaces between the projections is a hatched lozenge and other incised pattern; chains of incised lozenges decorate the flat part.

The method of attachment of the blade to the handle is not quite clear, for the simple reason that we do not know the type of tang. If, as appears probable, the blade is a knife with a flat tang and one or more rivets (pl. LX, 5), the method of attachment would consist of inserting the tang into the lower part of the handle, hollowed for this purpose, and then using rivets for fastening it on through the handle. In this case the incised lozenges would probably represent the tops of the rivets. The two projections dividing the lower part of the handle from the upper, the flat one, are intended for keeping the dagger at the desired position in the sheath.

The sheath is nearly double the dagger blade in length. The walls are thick and give the impression that the material was solid, either wood or horn. It is tubular and slightly flattened. There is a ridge in relief from the base to the point on one side, but this ridge is interrupted first by a ring of incised ornament and then, nearer to the point, by a relief ring. On the side opposite the ridge there is an incision running from base to point, giving the impression of the ends of a leather cover. The whole of the surface of the sheath is decorated with incised ornamentation, groups of chevrons, and hatched zigzags.

V. *Model of brush*³ (pls. xxxviii, c; LVI, 5). This is made of Red Polished pottery

¹ Murray, Smith, and Walters, *Excavations in Cyprus*, fig. 25, 1477.

² It is interesting to notice the close resemblance of the Vounous plough with the modern Cypriot plough. Although the latter appears to be more elaborate, it is mainly composed of four parts: the beam, the yoke, the handle, and the lower part which carries the share. The beam, which is composed of two parts, and the handle are stuck into the lower part. The same type of beam occurs on the early Babylonian plough (Bishop, *op. cit.*, p. 267) and on that of the two archaic bronze ploughing groups in the Fitzwilliam Museum which are reported to have come from Cyprus.

³ M. Schaeffer considers this object a comb (*Missions en Chypre*, p. 34). I would like to consider it as a brush, an instrument which was of outstanding importance and use for the pottery painters. Erimi yielded a great number of pendants copying stone axe-head, pestle, fishing-hook, etc. *Erimi*, pl. xxix, 3.

and is of square shape, with upward-tapering handle, pierced at the top. The decoration is incised and consists of groups of short parallel strokes.

VI. *Model of spindle, of Red Polished incised ware* (pl. LVI, 6). The top of this object appears to be of the same form as spindle-whorl of type IV (pl. LIX, 9) although the stem seems to be much thicker than a real one to judge from the diameter of the hole through the spindle-whorl brought into comparison. This is possibly due to technical reasons, the potter having thought that the model would be rather delicate had he made the stem of the same thickness as the real one.

Alternative interpretations of this object may, however, be brought forward. Thus it may be considered as a model of a staff or as a copy of a copper pin such as is shown on pl. LX, 16. The first alternative appears plausible and is corroborated by the fact that the object here described was found near a model of a dagger with sheath (another object symbolizing force) in a corner of tomb 29. The second alternative seems less probable on account of the difference in the thickness between the clay model and the bronze pin. Moreover there would be no sense in copying a bronze pin and offering it to the dead, as a pin is really of no essential use. And it has been observed that only objects of essential utility (such as dagger or brush for painting pottery) were copied and placed with the dead.

VII. *Ladle, with hemispherical cup and long handle, pierced at the top* (pl. LIX, 14).

Remarks on incised patterns on Red Polished ware

One of the chief characteristics of the Red Polished pottery is the incised ornamentation which constitutes a marked contrast when compared with the painted ornamentation generally used during the later Neolithic and Chalcolithic periods. A close examination, however, shows that both the technique of the incised pattern and its style are not altogether new elements but are on the contrary derived, to a certain extent, from the corresponding technique and style in use during the periods which preceded the Bronze Age.

The technique of the incised pattern has an analogous precedent in the Neolithic II-III periods, mostly discovered on the sites of Khirokitia and Sotira.¹ In these sites the pottery called *Reserved Slip ware*, which can better be described as *Combed ware*, was found in great quantities.² This is a red lustrous ware on which the ornamentation is produced by passing over the red slip, while this was wet, a comb-shaped instrument which took away with its teeth the slip and thus uncovered the underlying surface. The result is a pattern consisting of red and light-coloured parallel bands developing regularly either in a straight or, more usually, in a wavy manner. The method of the technique of the incised pattern is essentially the same with the difference that instead of being produced mechanically with a comb, it is applied with a pointed tool which can produce only one incised line at a time. The effect, however, is much the same. On the incised ware we see alternate red and light-coloured lines, the latter being simply the underlying surface which is often filled with white chalk. The fact that the potter, in the case of the incised pattern, uses a tool with only one point, renders the ornament less mechanical and more personal. This is the reason why the incised pattern of the Red Polished ware

¹ *Erimi*, 63 ff.

² It has also been found recently at Kalavassos and in a small quantity at Erimi (pl. XVIII, 1-3).

as compared with the combed ware is so rich and full of variations. On the other hand the incised patterns possess a marked similarity with those painted on the later Neolithic wares mostly found at Erimi.¹ This similarity is due to the fact that the painted technique preceded the incised, and it is only natural that when the incised technique was introduced the potter was bound to have in his mind the traditional painted patterns, especially as in both cases he is the master of his tool. This may be proved by actual examples. The incised pattern on pls. LVII, 2 and LVIII, 5 are evident counterparts of the painted patterns on *Erimi* pls. XIX, 18 and XX, 29. On the incised examples we see that the zigzag line is designed so that one stroke is thin and the following thick. This is an evident memento of the painted zigzag, where a similar phenomenon occurs, but there as a result of the rhythmical use of the brush, the pot-painter pressing the brush hard, so producing a thick stroke, and then pressing less hard, so producing a thinner stroke. When the decorator of the incised vase transferred the zigzag bands into the incised technique, he followed the same principles although there was no technical reason. The thick strokes of the zigzag were filled with short strokes perpendicular to the line of the zigzags, while the thin strokes were filled with lines parallel to the main zigzag line. It may be mentioned that in all the patterns, painted and incised, which will be brought into comparison here, a thick painted band is transferred into an incised one by tracing first the outline and then filling in the space between with hatching. This is of course a natural consequence due to the extreme thinness of the tool used for incised patterns, when compared with the brush which with one stroke fills the space required.

One of the most typical patterns in the incised Red Polished ware is the group of concentric circles (pl. XXII, *a*, *b*). This pattern does not occur on the painted pottery of the Neolithic III and Chalcolithic periods (i.e. at Erimi), but it occurs on painted pottery belonging to the Neolithic II period found at Khirokitia and especially at Troulli on the North Coast.² This does not of course mean a direct relation between the two patterns but, as in many other instances, it is relevant to mention the earlier instances even if they do not stand in direct relation with the later ones; this proves at least that there is a precedent for the later instances.

The zigzag lines are also common in the incised ware (pl. LVII, 3, 9, 11). These may be compared with *Erimi* pl. XX, 1, 22, and other examples. The groups of lozenges are a common pattern to both wares, i.e. the incised (pl. LVII, 7, 10, 12) and the painted (*Erimi* pl. XX, 2, 38, and others). The line flanked by dots (pl. LVII, 8) may be compared with *Erimi* pl. XXII, 12 and other similar examples. The pattern on pls. LVII, 14, 21 and LVIII, 9, which consists of groups of concentric semicircles placed along a straight line, is exemplified on painted fragments on *Erimi* pls. XX, 37, 41 and XXI, 29 with the difference that on the latter we have no concentric semicircles but simply a thick curve. The triangles placed apex to apex (pl. LVII, 12) may be compared with *Erimi* pl. XX, 35, 36. The triangles placed one next to the other with a narrow plain band between as on pl. LVII, 17 may be taken to represent a similar painted pattern (*Erimi*, pls. XXI, 28 and XXII, 52). The chess-board pattern (pl. LVIII, 6) is abundantly represented on the Erimi pottery. The cross-like pattern on pl. LVII, 15 is a known painted one on Erimi pottery (*Erimi* pls. XXII, 35 and XXIII, 20).

¹ *Erimi*, pls. XVIII-XXV.

² *Ibid.*, p. 73.

The groups of signs in the shape of a Z (pl. LVII, 11) are most frequent on painted pottery (*Erimi*, pl. XXI, 25 and others).

Among the patterns on white painted vases from Vounous we may mention the example on pl. LVII, 20 which shows a wavy line along a straight one in a similar manner as on *Erimi* pl. XX, 42.

These typical examples show therefore that the patterns on the Red Polished incised ware and naturally the White Painted pottery follow in some respects those of the Neolithic and Chalcolithic painted wares found in *Erimi* and elsewhere. The adaptation is, however, different. The incised patterns give the impression of a more systematized technique, rendered more geometrical and in fact lacking in imagination. Even the most impressive schemes like those on pl. XXII, *a*, *b* and fig. 14, where naturalistic patterns are introduced, bear the burden of geometrization.

C. *Black Polished ware*¹

The clay is fine, well silted, grey in colour, and is covered with a black polished slip. The decoration is incised, plain, or filled with white chalk. The following types may be distinguished :

Shapes :

- I. Deep bowl, with convex sides, three projections on the lower part of body. Incised (pl. LIII, 11).
- II. Bowl, small, hemispherical, with string-hole projection at the rim. The decoration consists quite often of hatched bands meeting at right angles on the base and dividing the surface into four panels which are decorated with concentric circles or other hatched bands. Another favourite pattern consists of concentric circles on the base, and bands from the rim to the base. But other geometrical ornamentation occurs (pl. LIII, 14).
- III. Bowl, small, with cylindrical foot which has a spreading base. The decoration consists of intersecting zigzag bands (pl. LIII, 13).
- IV. Amphoriskos, with globular body and wide, cylindrical neck. The decoration consists of zigzags round the body.
- V. Juglet, globular, with tapering neck, funnel-rim, and handle from rim to shoulder. The decoration is incised and geometrical (pl. LIII, 15).
- VI. Bottle. There exist three kinds of bottle : (a) the globular bottle, with tapering neck and small string-hole projection at the rim (pl. LIII, 12); (b) with globular body and short cutaway neck (pl. LIII, 16); (c) the conical or cylindrical bottle with cutaway neck. The decoration consists of hatched bands, of vertical zigzags and circles in the inter-spaces, and of a chain of lozenges round the body, comparable with pl. XXXIX, *c*.

Miscellaneous :

Head of stag, the body of which is missing (pl. XXXIX, *e*).

¹ Myres, *Handbook*, pp. 20 ff. ; Gjerstad, *Studies*, pp. 131 ff. ; *S. C. E.*, i, pl. CIII.

D. *Plain White ware*

The clay is fine, well silted, light coloured, and the surface is covered with a polished slip. The decoration is incised and filled with reddish filling material.

Shapes:

Pear-shaped bottle (pls. xxix, *b*; LIII, 5), with rounded base, tapering neck, and plain rim, two holes through the rim. The decoration consists of straight bands alternating with zigzag bands filled with hatching.

This is a new ware. The technique of filling the incisions with red earth is also new. This is a variety with white ground and red filling contrasting with the Red Polished pottery with white filling.

E. *White Painted ware*¹

The following types of White Painted ware may be distinguished :

Type I.

The clay is pinkish, well silted, and hard baked. The surface is covered with a fine slip, burnished, and pinkish in colour. The ornamentation is painted with thick mat dark red paint.

Shapes: Bowls.

(a) Bowl, hemispherical, with string-hole projection at the rim, and open spout below or at the rim. The decoration consists of groups of short strokes placed vertically all over the outer surface, or of groups of short, wavy lines enclosed by straight ones placed horizontally (pl. LV, 5).

(b) Bowl, hemispherical, with base slightly curving in, flat handle, and tubular spout below the rim; four projections on the rim. Ornamentation: wavy line round rim and vertical bands dividing the surface into panels ornamented with strokes (pls. XL, *a*; LV, 3).

(c) Bowl, hemispherical or nearly hemispherical, with rounded base, string-hole projection by the rim and open spout below it. Ridge below the rim. The decoration consists of wavy and straight bands round rim and base, and vertical ones dividing the space into panels (pl. LV, 7). The panels may be decorated with circles with wavy outline or other geometrical ornamentation. Naturalistic ornamentation, however, occurs and pls. II, *b* and LVIII, 1 show a remarkable example: stags, 'tree ornament', and other stylized objects decorate the panels.

(d) Bowl, shallower, with rounded base, string-hole projection on the rim, and open spout below the rim. Ornamentation similar to preceding.

(e) Bowl, open, with slightly flattened base, four rectangular projections at the rim. Ornamentation: two concentric circles on the base, ladder and tree pattern from the rim to the circles (pls. XL, *b*; LV, 11).

(f) Globular juglet, with slightly flattened base, cylindrical neck surmounted by another juglet with cutaway neck. Ornamentation: bands enclosing groups of horizontal parallel strokes round body and neck (pls. XLI, *c*; LV, 8).

¹ Myres, *Handbook*, pp. 25 ff.; Gjerstad, *Studies*, pp. 149 ff.; *S.C.E.*, pl. cv.

Type II.

The clay is whitish, fine, well silted, and less hard than in the previous type. The surface is covered with a fine creamy-coloured burnished slip of a very pleasing smoothness on which the ornamentation is painted in mat dark red paint of much finer workmanship.

Shapes: Bowls.

- (a) Bowl, hemispherical, with rounded base, flat handle, and tubular spout below the rim; projections on rim. Ornamentation: groups of wavy bands enclosing straight one arranged horizontally on the outside, circles round base. Similar to type I b (comparable with pl. LV, 3).
- (b) Nearly hemispherical bowl, with small, flat base, string-hole projection by the rim, and open spout below it. Ridge all round below the rim. Ornamentation: bands of wavy lines enclosing straight, or the opposite, from rim to base (pls. XL, d; LV, 9).
- (c) Hemispherical bowl, with rounded base, string-hole projection, and open spout as in preceding. Ornamentation as in preceding type.
- (d) Shallower bowl, with string-hole projection, and open spout as in preceding. Ornamentation as in preceding.

Composite vase:

- (e) Four bowls, surmounted by tall, tapering handle similar to the ladder-shaped handle of Red Polished types. Ornamentation as in preceding type (pl. XLI, b).

Horn:

- (f) Small horn, with two holes through the wall below the rim. Ornamentation: straight bands enclosing wavy one round the body (pls. II, a; XLI, a).

Type III.

This is a transitional ware. It is similar to preceding with the difference that the slip is thinner; it is harder and the quality of the ware in general is less good.

Shape:

Bowl, conical, with rounded base, diverging sides, four horned projections on the rim (pl. LV, 10). Ornamentation as in preceding type.

Type IV.

The clay is pinkish, well silted, and hard-baked. The surface is covered with a pinkish lustrous slip on which the ornamentation is painted in lustrous red.

Shape: Bowl.

- (a) Bowl, with distinct flat base, converging sides, distinct rim, and vertical loop handle by the rim. Ornamentation: chain of lozenges and triangles round the body, cross on base. Inside, rough wavy bands (pl. LV, 12).
- (b) Bowl, more shallow, with vertical handle. Decoration: hatching round rim, band of cross-hatching and zigzag across the bottom (pl. LVI, 4). The bowl on pl. LVI, 3 a belongs to the same type.

- (c) Oblong, shallow bowl, with string-hole projection and long, open spout at the rim. Ornamentation: band of zigzags round rim and other similar bands across the base (pls. XL, c; LVI, 3).

Amphora:

- (d) Globular or oval, with cylindrical neck, flaring rim, and knobbed handles from neck to shoulder. Ornamentation: bands of hatching and cross-hatching round body (pl. LVI, 1).
- (e) Jug, pear-shaped, with cutaway neck, handle from rim to shoulder. Ornamentation: bands of cross-hatching placed vertically on the body.

Type V.

This ware is similar to the preceding with the exception that the ornamentation is painted in mat.

Shape: Amphora.

Globular, with rounded base, cylindrical neck, two small handles at the neck-base. Ornamentation: bands of cross-hatching and chess-board pattern round neck and body (pl. LVI, 2).

This is the first time that White Painted pottery of the types I and II has been found. Type I shows a series of bowls which are certainly related to the Red Polished ware. First, the ware, which is pinkish and is covered with a pinkish burnished slip, reminds us of the Red Polished ware. Second, the shapes show close resemblance to those of the Red Polished ware, although some peculiarities may be noticed. These are the ridge below the rim of the bowls, which is rarely observed in the Red Polished ware, and the open spout below the rim, which forms a kind of bridge over the spout.¹ Another characteristic is the ornamentation. Although it is evident that the painted bowls were produced at the same time as the Red Polished incised bowls on which great variety of ornamentation occurs, yet the ornamentation on the painted bowls shows an almost uniform preference for the bands of wavy lines enclosing straight lines (or the opposite) from rim to base. The bands round the base, however, are common to both wares. This class includes the bowl (pl. II, b), which is ornamented with naturalistic pattern, a rare feature in this ware.²

Type II is a remarkable class of painted pottery, which is characteristic of the beautiful creamy coloured slip and the red ornamentation which is finer and more definitely geometrical, and follows the style inaugurated in the previous ware. Type II includes some bowls with rather thick walls, recalling the previous class, but at the same time includes others with thinner walls and generally of finer workmanship. The composite vase and the horn are unique types.

The main characteristic of type IV is the thinness of the walls, the high degree of hardness, and the lustrous paint of the ornamentation. This ware has neither the

¹ This kind of spout below the rim is well known in stone bowls from Khirokitia.

² A white painted jug with two necks found at Ayios Iakovos (*S. C. E.*, i, pl. cvI, 1) is decorated with horned animals painted in plain interspaces of geometrical ornamentation. This, however, belongs to White Painted II ware, which is, of course, a more advanced type.

thickness nor ornamentation of type I, nor the fine, pleasing, creamy coloured surface of type II. The shapes are also different and the ornamentation changes. It possesses more definite characteristics of the White Painted ware of the Middle Bronze Age.

With regard to the place which types I-III of Vounous White Painted ware ought to be given in comparison with the standard White Painted pottery mostly attributed to the end of the Early Bronze Age III and the beginning of Middle Bronze Age I, we may add that the Vounous types will have to be considered the earlier owing to typological characteristics and, of course, to their early appearance (see below). Type IV, however, has identical typological characteristics with the standard White Painted ware, and may be attributed to the same class and especially Gjerstad's types I-III.¹

F. *Black Slip ware*²

The clay is light-coloured and very hard-baked, and the surface is covered with a flakable thin wash of dark brown turning to black colour.

Shapes :

- I. Jug, of oval shape with narrow cutaway neck and knob-shaped projection at the base (pl. LIII, 6).
- II. Amphora, of rather globular, irregular shape, with concave neck, small raised distinct base, and handles from neck to shoulder.

II. MISCELLANEOUS

A. Spindle whorls

These are (a) of clay, (b) of bone, and (c) of stone.

(a) Clay. These are either of Red Polished or Black Polished ware, and are usually incised, rarely plain. The following types may be distinguished :

Type I. Conical, tapering to the top with flat or curving-in bottom. Incised or plain.

This type occurs either high or low (pl. LIX, 7).

Type II. Conical, with rather curved sides and bottom, curving inside or outside. Incised.

Type III. Domed, with flat bottom. Incised (pl. LIX, 8).

Type IV. With converging sides and flattened bottom. Incised (pl. LIX, 9).

Type V. Barrel-shaped with flattened top and bottom. Incised (pl. LIX, 10).

(b) Bone. These are of low type and have a flat bottom and curved top (pl. LIX, 1).

(c) Stone. Round and flat, of limestone (pl. LIX, 2).

B. Stone Mace-heads

The types found are :

Type I. Spherical, of andesite : bored from both sides (pl. LIX, 11).

Type II. Oblong, of limestone, with converging sides, bored from both sides (pl. LIX, 12).

¹ See Gjerstad, *Studies*, pp. 148 ff.

² Myres, *Handbook*, p. 22 (fabric II); Gjerstad, *Studies*, p. 134; *S. C. E.*, i, pl. ciii.

C. Whetstones

Type I. Andesite, rectangular, pierced through the top or sideways (pl. LIX, 5, 6).

Type II. Longer, somewhat tapering to the end, wedge-shaped top (pl. LIX, 13).

D. Loomweights

Of crude, whitish clay, oval, pierced at the top (pl. LIX, 15).

E. Flint

Type I. Flake of brown flint (pl. LIX, 4).

Type II. Flake of grey flint (pl. LIX, 3).

F. Stone Idol

Flat idol of gypsum of the same type as Red Polished idols (fig. 27).¹

G. Paste

Type I. Spherical beads of whitish paste.

Type II. Beads of blue paste.

Type III. Small flat beads of blue paste.

III. BRONZES

A. Dagger blade

Type I. Long, with mid-rib, heart-shaped top, distinct rounded hooked tang (pl. LX, 1).

Type II. Long, with mid-rib, rounded top, distinct rounded hooked tang (pl. LX, 2).

Type III. Shorter, with mid-rib, angular top, distinct angular, hooked tang with button-shaped end (pl. LX, 3).

Type IV. With slightly raised mid-rib, flat top, no tang, and three groups of three relief lines meeting at the point. Two rivets at the side (pls. XLII, b; LX, 14).

This remarkable dagger is evidently not a Cypriot type. It appears to belong to the type of long dagger found in southern Crete and particularly in the plain of Mesará.² The resemblance of the daggers found in this area with the Vounous example is striking: the outline, the place of the rivets, the base, the marked mid-rib, and especially the lines in relief, are all details which invite the closest comparison. The comparison is even more striking with a fragment (the upper part) of a long dagger, no. 1499, found in Tholos K,³ which has an identical ornamentation. According to Xanthoudides,⁴ Tholos K, in which unfortunately no pottery was found, belongs to E. M. II-III periods. This date is suggested by the great number of small triangular daggers and an ivory seal found in

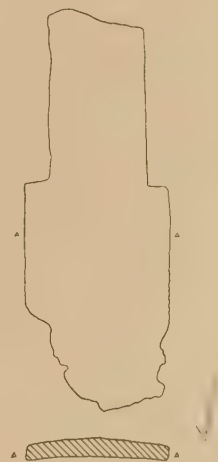


Fig. 27. Plank-shaped idol of gypsum, no. T. 2:15

¹ J. L. Myres, *Handbook*, no. 2001.

² Xanthoudides, *The Vaulted Tombs of Mesará*, pl. xxiv, 1187, 1179, 1175. I am greatly indebted to Mr. J. D. S. Pendlebury for valuable information concerning the origin of this dagger.

³ *Ibid.*, pl. XLIII, b, no. 1499, now in the Candia Museum. I must express here my thanks to the Curator of this Museum for permission to examine the Mesará daggers.

⁴ *Ibid.*, p. 84.

the same Tholos. The example, 1499, however, seems to belong to the last stage of the Tholos, i.e. E. M. III, which period, together with M. M. I., represents the flourishing stage of these long daggers.¹ We therefore do not hesitate to attribute the Vounous example to this period, i.e. E. M. III-M. M. I.²

The question is now whether the Vounous dagger is an importation from Crete. This is quite possible.³ In this case, was the dagger imported direct from Crete, and does it, therefore, testify to the existence of direct relations between Cyprus and Minoan Crete? This cannot be answered now, but it is relevant to mention that another object, an E. M. III painted vase, was found in 1930-1 in an Early Bronze Age tomb at Lapithos by the University of Pennsylvania Expedition.⁴

The chronological importance of the dagger is discussed on p. 164.

B. Knives

Type I.

With faint mid-rib; the base may be pointed, rounded, or angular; three rivets (pl. LX, 4).

Type II.

(a) With faint mid-rib, distinct flat narrow tang and one rivet at the top of the tang.

The sides taper straight to the point (pl. LX, 5). This type occurs with three rivets.

(b) Similar to preceding but with sides curving in first and then tapering to the point (pl. LX, 6).

(c) Similar to preceding but with three rivets (pl. LX, 7).

Type III.

(a) Flat rectangular blade, faint mid-rib (pl. LX, 8).

(b) Flat rectangular blade with faint mid-rib, distinct tang, one or three rivets (pl. LX, 9).

(c) With flat tapering blade, long, narrow, wire-shaped hooked tang (pl. LX, 10).

C. Axe-head

Tapering to the top, with spreading curved cutting edge (pl. LX, 11).

D. Scrapers

Type I.

(a) Triangular (pl. LX, 12).

(b) With sides slightly curving in (pl. LX, 13).

E. Pins

Type I. With distinct top (pl. LX, 15).

Type II. With distinct domed top (pl. LX, 16).

¹ Sir Arthur Evans, *Palace of Minos*, vol. i, p. 101; Pendlebury, *Archaeology of Crete*, pp. 86, 118.

² Mr. Pendlebury confirms this attribution.

³ Mr. Pendlebury is inclined to think so.

⁴ S. Casson, *Ancient Cyprus*, p. 207.

Type III. With no distinct top, but somewhat broadening (pl. LX, 17).

Type IV. With eyelet through the middle (pl. LX, 17 a).

F. Needles

Type I. With broadening thin tapering pierced top and rounded body (pl. LX, 18).

Type II. Top missing, flat body (pl. LX, 19).

G. Tweezers

Type I. With curved top, broad flat ends (pl. LX, 20).

Type II. With pinched top, ends as in preceding (pl. LX, 21).

Type III. With loop-shaped top (pl. LX, 23).

Type IV. Formed of two separate pieces pressed together and forming a double-hook at the top. Remains of wire round the top (pl. LX, 24).

H. Rings and other ornaments

Type I. Ear-ring? of semi-tubular shape and wire-shaped hook at the top¹ (pl. LX, 26).

Type II. Ornament of spiral flat wire (pl. LX, 27).

Type III. Finger-ring; pl. LX, 25.

Incised Inscription on handle of Red Polished jug, no. T 19:9, and other incised and painted signs.

The jug (pls. xxx, a; XLVIII, 2), described elsewhere (p. 44), is of outstanding importance owing to the inscription incised on its handle.

This is curved and flattened and has on the upper part a square-shaped projection, the outer surface of which is flush with the surface of the handle proper. The inscription is on the outer surface of the handle and starts from the place of attachment on the shoulder of the vase, and is continued on the projection (fig. 28). The signs were incised with a sharp instrument on the wet clay before the red slip was applied. For this reason a good number of the incisions were filled in with slip and are now unidentifiable. Others, although filled, are recognizable through the difference of colour, which is darker inside the incisions than outside them.

The inscription seems to be continuous, starting from one side, it is immaterial which, left or right; it follows the side of the handle, along the projection, and then along the other side of the handle downwards. I have adopted the method of starting from the left-hand side, although this is a pure guess.

The total number of the identifiable signs is twenty-two. If we except five, which are repetitions, we obtain the number of seventeen variant signs. These are mostly rectilinear, but two (2, 22) are curvilinear, and two others (3, 17) are a mixture of a curvilinear and rectilinear system.

¹ Similar ear-rings were found in gold at Lapithos, Vrysi tou Barba, by the Pennsylvania University excavations in 1931. I am indebted to Miss V. Grace for permission to make reference to these ear-rings.



Fig. 28. Inscribed handle of jug, no. T. 19:9. Scale: 2:3.

There is no need to emphasize the great importance of this inscription which gives definite and indisputable evidence of the existence of a kind of script at a period much earlier than the appearance of the Cypro-Minoan script.¹

Sir Arthur Evans,² on the evidence of a cylinder reported by Professor Sayce³ to have been discovered in the Early Bronze Age cemetery of Ayia Paraskevi, near Nicosia, and considered to belong to this period, put forward the theory of the existence of linear forms before the appearance of the Cypro-Minoan or Cypro-Mycenaean script.

The early period of this cylinder has been disputed by M. R. Dussaud⁴ who thinks that it reveals signs identical with those evidenced by other finds of the Late Bronze Age. Casson⁵ is of the same opinion and attributes the cylinder to the Late Mycenaean period.

To the arguments brought forward by the above-mentioned authors against the early dating of the Ayia Paraskevi cylinder we may adduce one more: the cemetery of Ayia Paraskevi does not only contain tombs of the Early Bronze Age, but also of the Middle and even of the Late Bronze Age.⁶ There exists, moreover, in the Cyprus Museum a large tomb-group, excavated at Ayia Paraskevi in 1927,⁷ the contents of which belong to two definite periods, (i) the Middle, and (ii) the Late Bronze Age. The first period is represented by white painted and a few red polished vases found in a lower layer, and the second, which is more important, by large numbers of Late Bronze Age Cypriot wares including a few Mycenaean vases. In the second layer two cylinders were also found. On the first (fig. 29), which is of fine workmanship, a human figure is represented standing. On its right is a row of three concentric circles and a stylized tree: on its left is a horned animal under the hind legs of which appears the sign: ⁸. The second cylinder (fig. 30) is of less careful technique and less well preserved, but is nevertheless of great interest. There appears a human figure with legs open wide apart, showing violent movement. On its right are first what may be interpreted as a snake and then two running animals, dotted circles, etc. On its left between two vertical lines are two signs: ⁹; of these the first is no. 23 in the table, p. 145, and occurs on the base of an Early Bronze Age Red Polished vase,⁹ presented to the Cyprus Museum by Mr. Tomaritis of Morphou (pl. XLIII, a); it is a known Cypro-Mycenaean letter (Casson, no. 45) and

¹ Evans, *Scripta Minoa*, pp. 68 ff.; *Palace of Minos*, iv, 758. A complete study of this script and a full list of the signs may be found in S. Casson, *Ancient Cyprus*, pp. 72 ff.

² *Scripta Minoa*, p. 72; *Palace of Minos*, iv, 763.

³ *Proc. Soc. Bibl. Arch.*, xxvii, 254, and pl. xi. On the evidence of this cylinder, Prof. Sayce considered that 'the existence of the Cypriot syllabary is thus taken to an Age contemporaneous with that of the Kretan linear characters'.

⁴ *Les Civilisations préhelléniques*, p. 429.

⁵ *Op. cit.*, p. 87.

⁶ O. Richter, *Kypros, Bible and Homer*, pl. CLXXII, tomb 15, and pl. CLXXIII, tomb 23.

⁷ This important tomb was cleared by the Museum Assistant, Mr. George Anastasiou, who furnished the information brought forward here.

⁸ This may be compared with the sign no. 3 on the Vounous vase: see table, p. 144.

⁹ This is a small jug, with cut-away neck and flat base. No. 1933: 1-25.

occurs in the Cypriot classical syllabary where its sound value is *vo* or *ti*. The second letter is equally important as it occurs on the Vounous vase (no. 19).

These two cylinders strengthen on the one hand the attribution of Sayce's cylinder to the Late Bronze Age, and on the other reveal remarkable connexions between the Cypro-Mycenaean script and that of the Early Bronze Age appearing on the handle of



Fig. 29. Seal-cylinder from Ayia Paraskevi near Nicosia
Scale: 2:1



Fig. 30. Seal-cylinder from Ayia Paraskevi near Nicosia
Scale: 2:1

the Vounous vase. As said before the sign of the first cylinder may be compared to sign no. 3 on the Vounous vase, while the signs on the second cylinder are the same as no. 23 on Tomaritis' vase and no. 19 on the Vounous vase. Of these two letters the first is used both in the Cypro-Mycenaean script and in the Cypriot classical syllabary. Both these facts considered together show the debt of the Cypro-Mycenaean script to the Early Bronze Age one, and that of the classical syllabary to the two previous ones.

This is further corroborated by the comparison of the signs of the Early Bronze Age script with the Cypro-Mycenaean one and the classical Cypriot syllabary in the table, pp. 144-5. There we see that three signs (1, 13, 23) occur in the three scripts. Moreover, four others, besides no. 19 already discussed (4, 5, 11, 12), occur in the Early Bronze Age and the Cypro-Mycenaean scripts.

It therefore appears that Sir Arthur Evans's theory 'that Cyprus itself had its independent tradition of early script, going back centuries before the date of the Minoan plantations on that side', although based on the evidence afforded by Sayce's cylinder (which is evidently of Late Bronze Age), is remarkably correct. We have now the definite proof that Cyprus did already possess, from the Early Bronze Age, a script to which both the Cypro-Mycenaean script and the classical syllabary are indebted.

The affinity of the Cypro-Mycenaean script with the Minoan script seems to be universally accepted. Sir Arthur Evans¹ thinks that the introduction of the Cypro-Minoan script from the Mycenaean side is less probable. This theory appears to be also adopted by Mr. F. J. Daniel,² who thinks that the 'Cypro-Minoan' script is derived directly from Crete and not by way of the Greek mainland. Casson,³ however, proves that there is close relationship between the Cypro-Mycenaean and the Mainland scripts. Similar connexions are detected by Professor Persson.⁴ One thing that appears to be established is that the Cypro-Mycenaean script has marked affinities with the Minoan one.

The comparison of the Cypriot Early Bronze Age script with the Minoan one now reveals that a few signs seem to resemble some occurring in the list of signs of classes A and B. These are nos. 3, 12, 13, 20, 23. The inscribed Vounous vase belongs to the Vounous Period III [A] which is attributed to 2300-2100 B.C. It was, moreover, found in tomb 19 which contained the bronze dagger (pl. XLII, *b*) which has been considered as a Cretan type belonging to the transitional period of E. M. III to M. M. I, a fact which strengthens the evidence afforded by the comparison of the Early Bronze Age script with the Minoan one. This comparison, however, should be taken with caution as at the present stage of our knowledge the connexions are not evident enough and the resemblances may be accidental. In this connexion it may be mentioned that the inscribed Vounous vase reveals a script which dates from a period earlier than that of the Cretan linear scripts of classes A and B which are dated to M. M. III and L. M. I respectively.

Whether the Cypro-Mycenaean script was used for Greek or not⁵ we now know that there existed a script in Early Bronze Age Cyprus, and that consequently there existed some sort of language. If this is brought into connexion with the existence of inscriptions⁶ in the Cypriot syllabary written in an unknown language, it may strengthen Casson's theory that this unknown language may represent that of the pre-Mycenaean Cypriots, the aboriginal language itself. The inscription on the Vounous vase may, then, be the earliest evidence of this language.

Was this Early Bronze Age script found in the Vounous necropolis spread all over Cyprus? As explained before, the Vounous vase is the first example which reveals this script, with the exception of Tomaritis' vase and a Red Polished vase, no. A 1804, in the Cyprus Museum which has on the lower part of the handle the sign Π (pl. XLIII, *b*).⁷

¹ *Palace of Minos*, iv, 761.

² *A. J. A.*, xlii, no. 2, 272.

³ *Ancient Cyprus*, pp. 89 ff.

⁴ *S. C. E.*, iii, 604.

⁵ For a discussion of the problem see Casson, *op. cit.*, p. 95; see also Persson, *S. C. E.*, pp. 601 ff., and F. J. Daniel, *A. J. A.*, xlii, 2, pp. 273 ff.

⁶ Now in the Ashmolean Museum. See R. Dussaud, *op. cit.*, 437, and Casson, *op. cit.*, p. 95.

⁷ It may be mentioned here that on the handles of a good number of Red Polished vases discovered in the early part of the Vounous necropolis by Mr. Stewart appear isolated incised signs.

To these the Arpera bowl, pl. LIV, 4 on the base of which appears the sign  comparable with no. 12 on the Vounous vase, should be added. The fact that no previous discovery of Early Bronze Age script has been made, in spite of the tremendous amount of material unearthed, shows that this script was used only in a limited area, probably round Vounous, which has in fact revealed a cultural standard higher in every direction than any other Early Bronze Age necropolis in Cyprus. In the case of tomb 19 in which the inscribed vase was found, we recall the fact that finds of exceptional interest were also collected there; such are the double-necked vase on pl. XIX, *d*, with human figures in relief, the wonderful composite vase on pl. XXXII, *c*, the beads of blue paste, and lastly the decorated bronze dagger (pl. XLII, *b*), which is considered of Cretan type.

The fact, however, that three more vases, the Tomaritis one (which apparently comes from the western part of Kyrenia District), no. A 1804 in the Cyprus Museum (the provenance of which is unknown), and the Arpera bowl, bear isolated signs, shows that the script spread to other parts of Cyprus on a smaller scale.

The problem of the inscription on the Vounous and the other vases is naturally a matter which cannot be definitely solved. Casson¹ thinks that the inscriptions incised on necks or shoulders of Mycenaean vases indicate ownership or contents. The handle inscriptions are brief indications of ownership. On the other hand, Dr. Schaeffer thinks that the signs painted on the bases of vases are trade-marks. Professor Persson thinks that the signs incised on handles and bottoms refer to the name of the owner, and are either indications of possession or of a dedication. The inscriptions on the shoulders of the vases have reference to the contents of some kind. In the case of the Vounous vase we have a long inscription on the handle. The very length of this inscription permits us to suppose that it was not a simple indication of contents or ownership. Although the latter meanings are not excluded it may be supposed that some dedicatory purpose is also contained. As to the other vases with inscribed signs on the base or the handle² we may suppose that they are either potters' or owners' marks.

Before closing these notes I may add a few more remarks on the painted signs appearing on the outer surface of the White Painted vase on pl. II, *b*, which is divided in panels by groups of wavy parallel lines or 'tree' ornament from rim to the base ornament. In three of these panels appear some signs which may be considered as belonging to the Early Bronze Age script. These are nos. 25 and 26 in the table (p. 145) and they occur twice together, the second on top of the first, while the second occurs isolated once more. Moreover, in one of the panels occurs a group of six short parallel strokes which seem to indicate numerals.

The first of these signs is a known Cypro-Mycenaean sign (Casson, no. 33) and occurs in a similar form in the Cretan script of classes A and B;³ thus the possible links of this sign, and consequently of the script, revealed in the necropolis of Vounous with the Cretan scripts are once more corroborated.

The second sign occurring on the White Painted bowl is of similar nature as the first, but, besides being double, it is placed horizontally. The 'stem of the fork' is, moreover, placed along the side instead of in the middle as in the first sign. This is more in

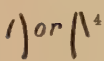
¹ Casson, *op. cit.*, pp. 80 ff.

² These signs were incised in the wet clay.

³ Evans, *Palace of Minos*, iv, fig. 744.

accordance with sign no. 20 on the Vounous inscription and the sign  of the classical syllabary and with sign 12 of the Cretan script of class A.¹ The only possible comparison of this sign is with sign 12 of the Cretan script of class B,² which is connected with the hieroglyphic of the crossed hands; but the resemblance is nevertheless distant.

There remains the row of parallel strokes considered as numerals. Such numerals occur also in the Cypro-Mycenaean script.³

<i>Cypriot Early Bronze Age.</i>	<i>Minoan.</i>	<i>Cypro-Mycenaean.</i>	<i>Cypriot Syllabary.</i>
1. 		 <i>P. of M.</i> , iv, fig. 743, 'e' 5.	 sa
2. 		<i>S. C. E.</i> , iii, 604, no. 13.	
3. 	 <i>P. of M.</i> , iv, A 2 and B 2 on fig. 666 (A).		 ?re
4. 		 <i>S. C. E.</i> , iii, 604, no. 13.	
5. 		 Casson, p. 107.	
6. 			
7. 			
8. 			
9. 			
10. 			
11. 		 Casson, no. 40.	
12.  ⁴	 <i>P. of M.</i> , iv, fig. 744, no. 11.	 <i>P. of M.</i> , iv, fig. 744, no. 11. <i>S. C. E.</i> , iii, 604, no. 6.	
13.  ⁵	 <i>P. of M.</i> , i, fig. 476, no. 18, class A.	 Casson, no. 26. <i>S. C. E.</i> , iii, 604, no. 11.	 lo

¹ Evans, *Palace of Minos*, i, fig. 476.

² *Ibid.*, iv, fig. 666 (a), B 12.

³ Casson, *op. cit.*, p. 107.

⁴ The second sign occurs on the base of the Arpera bowl, pls. xxxvi, b and LIV, 4.

⁵ This sign also occurs on a Red Polished jug recently found on a site near Karmi, in the Kyrenia district, now in the Cyprus Museum.

<i>Cypriot Early Bronze Age.</i>	<i>Minoan.</i>	<i>Cypro-Mycenaean.</i>	<i>Cypriot Syllabary.</i>
14.		Casson, no. 23.	na
15.			
16.			
17.			
18.			
19.		• Ayia Paraskevi, Cyprus Museum cylinder.	
20.	<i>P. of M.</i> , iv, fig. 666 (A), A 12 and B 13.		se
21.			
22.			

Other incised signs on Red Polished vases.

23.	<i>P. of M.</i> , iv, fig. 744.	Casson, no. 45. <i>S. C. E.</i> , iii, no. 18. Ayia Paraskevi, C.M. cylinder.	? vo
24.			

Painted signs on bowl, pls. II, b; LVIII, I

25.	<i>P. of M.</i> , i, fig. 476, no. 9, class A.	Casson, no. 33.	
26.	<i>P. of M.</i> , iv, fig. 666 (A), B. 12.		

NOTE.—Nos. 6, 9, 18 are identical with no. 1; no. 16 is identical with no. 5; no. 15 is identical with no. 7.

CHRONOLOGY

The study of the material found in the different tombs shows that these tombs fall into three distinct periods, of which the chief characteristics are the following:

Period I

In this period the following tombs are included: 35, 41 and side chamber, 30, and 28. It is advisable to consider first tombs 35 and 41, which may be attributed to sub-period A, and secondly the remainder, as some differences in the pottery shapes are noticeable. The second group of tombs may be attributed to sub-period B.

Tombs 35 and 41 are both of small size; the first contained two burials and the second, five. The pottery contained by both of them belongs to the earliest types which, as explained in the section on the classification of the pottery, have characteristics which can be connected with vase shapes found in Erimi, belonging to the Neolithic and Chalcolithic times. Such are the large deep bowls of types Ia (pl. XLIV, 1) and Ib, and the large wide bowls of type IIIb (pl. XLV, 2). The jugs contained by these tombs also belong to the earliest types found in the excavated part of the cemetery. Such are the jug type IIIa (pl. XLVIII, 12) and IVa (pl. XLIX, 4), which again recall characteristics met with on pottery found at Erimi. The cooking-pots are also of early type (i.e. type Ia on pl. LI, 2). Among the smaller vases, the hemispherical bowl of type VIa (pl. XLVI, 2) (found in tomb 35), which is an early type, and the incised Red-slip bowl found in tomb 41 (pl. XLVI, 1), are worth mentioning. The latter is a definite survival from late Neolithic times, both from the point of view of ware and shape. The amphorae are represented by some early types, while the minor types include some specimens which typologically can be placed at the head of their series. A remarkable feature is the discovery of a white painted bowl in tomb 41 (pl. LVIII, 2). This bowl belongs to type Ic, which is one of the earlier types of White Painted pottery found in the Vounous tombs. Finally a general remark may be made in connexion with both tombs 35 and 41. The undecorated in vases are in a definite and marked majority, while the decorated (incised) types are very few. Black Polished ware occurs only once (tomb 35).

Sub-period B includes tombs 30 and 28. Generally speaking these tombs belong to a slightly advanced stage, as they contain types of vases which are characteristic of period B, although they have a good number of early types, which were already noticed in the tombs 35 and 41. All the tombs of this group are small, and do not contain more than one burial. The types of large

¹ Owing to the fact that tomb 41 contained five burials, it is possible that this White Painted bowl, as well as some other types, may belong to the later burials.

bowls found in them belong to types II a, III b, and III c, but are typical of the undecorated or simply decorated specimens. Among the small bowls types VI c and IX d (pl. XLVI, 5, XLVII, 4) are noticeable in tomb 28. The jugs all belong to early types, i.e. Ia (pl. XLVII, 10), III b (pl. XLIX, 1, 2), and IV a (pl. XLIX, 4), which are typologically the earliest of their series. It is interesting to remark that tomb 28 contains a small shallow bowl with birds, and in front of them small cups on the rim comparable with pl. XIV, c. The amphorae found in all the tombs belong to the earliest types, especially to types I and II a (pl. I, 3, 4). It therefore appears that tombs 30 and 28 contain vases already noticed in the tombs of period I A, but in addition they contain some vases decorated with relief ornamentation, especially snake ornament or horned animals (pl. XLVII, 10) and some others, bowls, small jugs, decorated with incised ornamentation. It is, moreover, evident that the undecorated types are much more numerous than the decorated ones, which are only a small minority.

It is also important to notice that in both sub-periods of period I metal is absent.¹

Period II

To this period belong some of the most important and largest tombs found in the Vounous necropolis. Two sub-periods A and B may also be distinguished in this period.

Sub-period A. To this the following tombs may be attributed 15, 6, 13, 8, 12, 2, 3, 7, 31, 39, 43 A, 46 A, 5, 32 A, 18, 11. The chief characteristic in these tombs is the appearance of a wonderful series of large bowls of very elegant shape and rich ornamentation in relief. These bowls develop out of the types already occurring in period I, but they are no longer simple and undecorated. They belong to the two large classes: (a) class of deep bowls with flat handles, i.e. type II a on pl. XLIV, 4 and (b) the class of handleless large wide bowls (type III b) (pl. XLV, 2-4). Both these classes are illustrated by some fine examples such as pls. x-xi. Tomb 2 has yielded one more remarkable type, the vase decorated with four birds perched on the rim (pl. x, c).

A second chief characteristic of the tombs of this period is the frequent appearance of big jugs of type I b (pl. XLVII, 12) which is the most elegant form of jug found in the necropolis. This jug occurs in a larger size, more elaborately decorated, usually with horned animals applied in relief on the upper part of the body. Such are pl. XVII, b found in tomb 11, pl. XVII, c found in tomb 2, and pl. XVII, d found in tomb 32 A. During the same period appears the jug with rather wide cutaway neck, with very developed ornamentation in relief consisting

¹ This, however, should be considered a coincidence as bronze implements have already been reported in the Early Cypriot I period (Gjerstad, *Studies*, p. 267), and a copper tool has been found in the Chalcolithic layers at Erimi (*Erimi*, p. 50).

of snakes and horned animals. Such are pl. xvii *a*, found in tomb 5, and pl. xix, *a*, *b*, found in tomb 39. Moreover big jugs, with one or two necks with incised ornamentation covering the whole of their body, also occur. These belong to type II c (pl. xlviii, 8, 10). This type is illustrated by a few remarkable examples, such as pl. xxv, *d*, found in tomb 12, and pl. xxiii, *d*, found in tomb 15. The latter tomb contained the incised jug on pl. xxiii, *b*, which shows, besides geometrical patterns, naturalistic ornamentation consisting of stags.

A remarkable feature in this period is the appearance of goblets or kylikes with birds and cups placed on the rim. Such are pl. xvi, *a*, found in tomb 5, and pl. xvi, *b*, found in tomb 8. Composite vases appear also for the first time. These are illustrated by simple forms composed of four cups surmounted by a handle such as pl. xxvi, *b*, found in tomb 8, and others more elaborate. These have a taller ladder-shaped handle with straight or stepped sides, in most cases decorated with incised pattern. Such are illustrated on pls. xxvii, *b* and xxvii, *c*, the latter having an amphoriskos perched on the top of the handle. Another interesting type of composite vase appearing during this period is illustrated on pl. xxxi, *a*. This is composed of three oval juglets joined to a common long stem, shaped as a spout, and shows evident effort to copy prototypes from nature, such as three fruits with a common stem. But the potter does not content himself with these rather simple forms. He creates more complicated ones such as pl. xxxi, *d*, which is a development of the type previously described. It is composed of three juglets supporting a fourth one, so that if a liquid were poured into it, the three lower juglets would get filled simultaneously.

Another type of vase appearing now for the first time is the pyxis. This occurs with simple incised decoration such as pl. liv, 1 found in tomb 15. But it also occurs with very rich incised ornamentation. This type is illustrated by a few outstanding examples, such as pl. xxxiv, *a*, found in tomb 11. Another example is shown on pl. xxxvi, *a*; this, besides the incised decoration, is ornamented with human figures standing on either side of the mouth, and illustrates the tendency among the potters to decorate the different vases not only with geometrical or naturalistic pattern applied in relief but also with human figures modelled in the round. An independent human idol (pl. lx, 29) occurs in tomb 11.

Side by side with the big incised vessels small ones are produced in great quantities. First of all small bowls. The incised hemispherical bowl is represented by a good number of examples. Small incised bowls with flat handles copy large ones (pl. xlvi, 6). Deeper bowls with incised ornamentation (pl. xlvi, 5), others with pointed or knob-base (pl. xlvi, 9), and others with small flat raised base also occur. The latter type is illustrated by a few examples which have additional small cups on the rim alternating with horned projections (pl. xlvi, 10).

The same tendency is noticed in the production of small jugs with incised ornamentation. The type of the globular or pear-shaped jug with tapering neck, funnel rim, and incised ornamentation (pl. LII, 7) is greatly favoured. But other small ornamented vases, such as bottles (pl. LIII, 2-4), also occur.

Amphorae occur mostly of type II a (pl. L, 4, 5), but other types such as type II b (pl. L, 6) and, of the smaller types, such as type VI b (pl. LI, 7) and type VII a (pl. LII, 1), which is an incised type, are met with.

An outstanding feature is the White Painted pottery. The types which occur are mostly the different varieties of the types I-II. Type I is illustrated by a few remarkable examples such as pl. XL, *a*, which was found in tomb 2 and fig. 17, which was found in tomb 18. Moreover, type I c is illustrated by the unique example on pl. II, *b*, which is decorated with painted stags and other patterns of a peculiar character, in addition to the geometrical ornamentation. Moreover, tomb 5 has yielded a rare example of White Painted pottery (pl. XLI, *c*), which is a vessel composed of two small jugs, one on top of the other. The greater number of White Painted bowls found in the tombs of period II belong, however, to type II and its varieties. This is a ware with a very pleasing burnished creamy coloured and very smooth surface, on which the ornamentation is painted in mat red. The bowls are of nearly hemispherical shape with open spout below the rim. It is to type II that the composite vase (pl. XLI, *b*), found in tomb 12, is attributed. Tomb 18, moreover, yielded a White Painted horn (pl. II, *a*), which is remarkable for its fine ware and great simplicity of decoration. In addition tomb 6 contained a bowl of type III (pl. LV, 10), which has no longer the refined slip and the careful decoration which occur in type II.

Unlike period I, during which bronze (copper) objects are absent, period II reveals a great number of bronze weapons and other objects. Nearly every tomb contains bronze, and tombs 15, 13, 2 have yielded remarkable collections of daggers, mostly of type I (pl. LX, 1), and knives, pins, and tweezers of different types. Spindle whorls of Red Polished ware are among the minor finds.

During the same period beads of blue and white paste make their appearance.¹ Tomb 15 contained two necklaces of globular blue-paste beads and other smaller ones.

Sub-period B of period II is represented by only two tombs, 42 and 45. The general characteristics of this sub-period appear to be similar to those of sub-period A, with the difference that the chief types undergo a certain evolution. Thus the deep bowls become smaller, and have more rounded sides, and the body of the jugs of type I b (pl. XLVII, 12) has not the regular outline met with in the previous period. Moreover, types of jugs which are typical of the following period, i.e. types I d-I e, already appear.

¹ See note 2, p. 174.

The smaller types are the same as the period II a, although different types occur. Thus tomb 42 contained the bowl, type XI (pl. XLVII, 9) with convex lid, and tomb 45 the small bowl, type VIII a (pl. XLVI, 11), which has a flat base and spreading sides. The same tomb contained the models of dagger and sheath (pl. XXIX, *a*).

Black Polished ware occurs only sporadically. Out of 8 tombs belonging to periods II A and II B only four tombs belonging to period II A contained black polished ware in small numbers.

Before dealing with period III it is advisable to consider two interesting tombs (27 and 36) which, owing to the great variety of material found in them, cannot be clearly attributed either to period II or III. This material is partly characteristic of period II and partly of period III. This can be explained from the fact that both these tombs contained an exceptional number of burials (tomb 27 contained six burials and tomb 36 nine), which justify the attribution to a period overlapping periods II and III.

The chief characteristics of these tombs are the following: first of all they both contain a representative number of large deep and wide bowls which, as we have seen, are one of the main distinguishing elements in period II. Moreover, jugs of I b occur in good numbers. At the same time these tombs contain jugs of more evolved types, such as types I d and I e. Thus tomb 27 contains a big jug (no. 5), which shows that the weight of the body is more and more dropped towards the base, and secondly, the outline of the neck becomes slightly convex, while the ornamentation no longer consists of snakes placed vertically on the neck, but of rings round the neck and bands pendent from the base of the neck. Besides this type other similar smaller and more definitely later types are met with. Moreover, tomb 27 contained a Black Slip amphora. Tomb 36 contained, besides plain large bowls, or others decorated with relief ornamentation as usual, among which the remarkable bowl on pl. XI, *e*, a large bowl, the outer surface of which is entirely decorated with incised pattern (pl. XII, *c*). As to the smaller vases the types are divided between those characteristic of period II and those usual in period III. Tomb 27 contains a goblet of type III; both its workmanship and the great stylization of the small birds perched on the rim show decadence of the type. On the other hand, it contained a shallow bowl with, on the rim, four birds quite faithfully copied from nature (pl. XV, *a*). The same tomb contained White Painted ware of type II a, i.e. of hemispherical type with flat handle and tubular spout, and of type II b. Tomb 36 contained, moreover, a few remarkable small types, some of which occur frequently in period III. Such is the ring-vase shown on pl. XXXIII, *d*. Moreover, it contained the bowl on pl. XIII, *c*, which shows that ornamentation in relief is now extended from large vessels to small ones. The same tomb contained the

beautiful deep bowl decorated with birds and the head of a horned animal in relief perched on the rim (pl. xiv, *b*) and the two incised horns on pl. xxxviii, *a*.

Period III

This is also divided into two sub-periods A and B.

Sub-period A. This includes the following tombs: 17, 29, 9, 21, 24, 26, 19, 47, 48, 23 *a*, 22, 20.

The large bowls which were the main feature in period II now tend to disappear altogether, but they still, of course, occur occasionally. Thus tomb 29 contains only one; tomb 9, which is one of the largest tombs of this period, contained only one of type III *b*, but with convex sides; tomb 26 contained three late types; tomb 19, which is one of the most important tombs, contains only one with flat handle but evidently of late type; tomb 47, which is a large and intact tomb, contained no example of a large bowl; while tomb 48 contained only one. Another noticeable difference is that the jugs of type I *b* (pl. xlvii, 12), which are such a prominent feature in the previous period, tend to disappear. Their place is, nevertheless, taken by types of jugs, mostly types I *d* and less often type I *e*. Type I *d* (pl. xlviii, 2) has a cylindrical neck, and is decorated with rings round the neck, and quite often with bands pendent from the base of the neck. Tomb 19 yielded a remarkable example of this type (pl. xlviii, 2), which is interesting for the signs incised on the handle (pl. xxx, *a*), while tomb 24 contained the example on pl. xix, *c*, which is, moreover, ornamented on the upper part of the body with animals in relief. Some of the types of jugs, however, which were met with in period II are still found in this period. Such are the big incised jugs (type II *c*), which occur also with two or three necks. Thus tomb 9 contained a good number of the single-necked jugs, one of the double-necked (pl. xxv, *a*), while tombs 24 and 47 each contained an example with three necks.

One outstanding feature, though not general, is the occurrence of large thick amphorae of late types such as type IV *b*. Thus tombs 19, 47, and 48 each contained characteristic amphorae in good numbers. Other tombs contained smaller numbers, and others none.

Modelling in relief, and especially in the round, becomes an outstanding feature in this period. Both these tendencies were apparent in the previous period, and animals in relief and human figures modelled in the round were noticed. But now they show a brilliant development. Animals in relief on jugs, common in the preceding period, are now rare, but occur on small bowls such as the bowl on pl. 1, found in tomb 29. It is mostly the modelling of human figures in relief and in the round that now becomes an outstanding feature. Thus tomb 19, one of the richest in this period, yielded the double-necked jug

shown on pls. xix, *d* and xx, *a, b*. One of the necks of this jug is decorated with two human figures in relief, while animals decorate both necks. Tomb 48 contained a composite vase with ladder-shaped handle, on top of which appears a woman holding an infant in her arms, of rather crude style (pls. xxvii, *d*, xxx, *b*). But it is tomb 22 which contained the masterpiece of the whole necropolis. This is the model of the sacred enclosure illustrated by pls. vii and viii. This remarkable find shows to what high degree of development sculpture in clay had reached in this period. To this period the model of a ploughing scene (pls. ix, x, *a*) should also be attributed, although the tomb in which this find was discovered was greatly disturbed and its contents smashed to pieces. Both these models show a marked tendency towards representing scenes of familiar character, and testify to a high achievement in this line. To the same artistic activity may be attributed the important fragmentary double-necked jug with, on the upper part, a modelled scene of a row of four human figures grinding grain (pls. xxi, *a-c*).

Another tendency becoming more and more definite in this period is noticed in the manufacture of composite vases. Here we see that besides the continuation of some of the types occurring in the previous period some new, more elaborate ones appear. The type with many bowls and ladder-shaped handle continues; of this tombs 9 and 19 yielded good numbers. Other more complicated types formed of juglets are also met with (pl. xxxi, *c*). But the greatest achievement in this line is marked by the magnificent composite vase shown on pl. xxxii, *c*, which is composed of four large and three small jugs forming a wonderful construction that is unique of its kind.

The love of the potter for complicated shapes is further evidenced by the appearance of the ring vases. These are usually formed of a hollow ring on which three, four, or five bowls communicating through their bases with the ring are placed. Such is shown on pl. xxxiii, *a*, which was found in tomb 29, together with another similar ring vase with three cups. The ring may be supported by four legs (as on pl. xxxiii, *c*), or one of the bowls may be replaced by a jug as in the case of the ring-vase found in tomb 22, of which moreover the legs have vertical channels through which the liquid in the ring may run to the ground. Tomb 9, moreover, yielded a 'table for offerings' (pl. xxxiii, *b*), which is the only example found.

The tendency to copy in clay objects of daily use, such as daggers, is now further proved by a great variety of models of actual objects. Thus tomb 29 yielded a model of dagger and sheath similar to pl. xxix, *a*, and a model of spindle or staff (pl. lvi, 6). Tomb 9 yielded models of a brush (pl. xxxviii, *c*) and of two small horns (pl. xxxviii, *b, e*).

The pyxis is now produced in greater numbers. Tomb 29 contained one;

tomb 9, two, one of which appears on pl. xxxvii, *a*; tomb 24, one; tomb 19, four; and tomb 47, one of unique type, shown on pl. xxxvi, *b*.

Goblets (pl. xii, *e*, found in tomb 9), incised bowls with small flat raised base as on pl. xlvii, 1, and other ornamented types also occur. Bowls with birds and cups on the rim are rare. Only one (pl. xiv, *d*) has been found in tomb 22.

Incised juglets of type VI b (pl. lii, 7) are still common, but in smaller numbers than in the period II. On the other hand, the plain juglets with cut-away neck occur more frequently. The type with tubular spout (pl. lii, 13) also occurs in small numbers.

White Painted pottery occurs only in a few tombs. Thus tomb 21 yielded the bowl on pl. xl, *c*, which belongs to type IV c (pl. lvi, 3), and tomb 26 contained a bowl of rather early type (I c). Tomb 19 yielded bowls of type II b and I a. It therefore results that the White Painted pottery found in the tombs of period III is approximately the same as found in period II with the exception of one case (tomb 21).

Spindle whorls of clay and bronze weapons and implements occur in the same or greater numbers than in period II. Beads of blue paste have also been found.

Sub-period B. This includes the following tombs: 32, 33, 34, 37, 38, 40. The general characteristics of this sub-period are the same as those of period III A. Although tombs attributed to it had all been visited by looters we noticed that no large bowl had been found in any of them. On the other hand, small vases, bowls, juglets, amphoriskoi have been found in great quantities. It may even be said that the shapes and great numbers of the small vases constitute the main characteristic of this period.

The artistic tendencies noticed in the previous period continue into this period to which some remarkable finds may be attributed. Thus the custom of decorating the upper part of big jugs with modelled representations of familiar scenes is exemplified by the fragmentary jug found in tomb 37, and shown on pl. xviii, *a, b*, on which a ploughing scene is represented. Moreover, the three-necked jug with the figure grinding grain on top, found in the same tomb, and shown on pl. xxv, *e, f*, is another example of this tendency.

Animals in relief, though rare, are still to be found. Tomb 37 contained a jug, with stags in relief. The same tomb yielded a remarkable pair of pyxides (pl. xxxv, *a, b*), with pairs of birds on either side of the mouth. The lid of one of them was, moreover, decorated with two human figures. The same tomb yielded the big jug shown on pl. xix, *e*, on which four equidistant juglets are placed round the upper part. This reminds us of the old manner of placing cups and jugs found in the period II (pl. xxiii, *a*). Other animals or birds modelled in the round were found in tombs 40 (pl. lx, 28) and 33 in which

two animals of very vigorous style were found (pl. LX, 31, 32). Human figures modelled in the round are also found. Tomb 38 yielded a pyxis with a human figure of the flat type (comparable to pl. xxxvi, *a*, left-hand figure), while tomb 40 contained another human figure (pl. LX, 30), which must have been placed on a vase.

Black Polished ware occurs more frequently in period III A. Out of eleven tombs attributed to this period five contained Black Polished ware. But period III B is characteristic of the general occurrence of Black Polished ware in increasing numbers.

One of the chief features of the tombs of period III b is the White Painted pottery found in them which is typically Middle Bronze Age. The shapes are bowls of types IV a (pl. LV, 12), IV b (pl. LVI, 3 *a*, 4), and amphorae of types IV d (pl. LVI, 1), V (pl. LVI, 2).

To the types of spindle whorls found in the previous periods, the barrel-shaped type (pl. LIX, 10) is now added.

The bronzes are represented by daggers, knives, tweezers, pins, and one axe-head (pl. LX, 11) found in tomb 37. The miscellaneous objects include whetstones, a limestone spindle whorl, and paste beads.

In the foregoing pages we have examined the chief characteristics of each of the three periods to which the forty-eight tombs are attributed. We have seen that the first period, although represented by a few tombs, shows evident tradition from the pre-bronze times. The ornamented types are few, but this may be simply a coincidence. Then comes period II. Here the culture seems to take a definite and individual direction. The large decorated bowls, the big jugs decorated with animals in relief, form the main distinguishing elements. This period includes the largest tombs in the necropolis and represents a powerful and vigorous culture. Follows period III, during which we see that artistic activity is directed in a way which, though different from that in period II, shows considerable individuality. The potters no longer produce the large richly ornamented bowls of period II, nor do they make the jugs ornamented so artistically with stags and other animals in relief. Now they turn their activity towards representing scenes from the agricultural, domestic, and religious life, probably because the culture during that period takes a more organized and elaborate form. The dexterity of the potter now reached the highest degree. Composite vases of most complicated and elaborate form are now made. Probably the religious gatherings, now organized and active, required vases of a ritual and elaborate form such as that found in tomb 19 (pl. xxxii, *c*).

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As we have seen, the main elements on which the classification of the Vounous tombs was based were, on the one hand, the affinities of the pottery shapes found in them with the pottery shapes which belong to the Neolithic period, and on the other the tendencies which mark the different evolutionary stages towards producing such or such great class of pottery which can be considered as fundamental cultural characteristics. The importance of each of these factors taken individually is relative, but taken together they complement each other. Here we may offer a few remarks on the typological classifications of Bronze Age pottery which existed before the Vounous discoveries. The typological classification of the pottery is certainly an important and sound method on which the classification of a number of tomb groups may be based. But its importance should be confined within the limits of relativity. When Professor Myres classified the Red Polished pottery from Cyprus,¹ and when later Dr. Gjerstad produced a new classification of the same material,² nothing was known of the pottery which existed before the Bronze Age. Now the revelation of the pottery of the Erimi culture³ and of the stone vases found at Khirokitia⁴ shows that the existing typological classification should be received with some caution. Thus the theory that some types resembling gourds may be considered as the earliest shapes⁵ cannot be taken absolutely, as we see that the Erimi shapes or even those from Khirokitia are rarely inspired by natural shapes. Khirokitia has yielded, for example, a large number of deep stone bowls with flat base and diverging sides. Others are oblong and low with flat base, others have rounded base and are shallow, oblong, or semicircular. Although in many cases the shape of the stone vases was governed by the shape of the block of stone available, we must admit that the cutter of stone vases chose the stone block which suited the shape which he had in mind. If this is so we must also admit that the cutter of stone vases at Khirokitia was rarely inspired by nature in thinking out the shape of the vase he was to produce. This is corroborated by the fact that in Erimi times, when clay was mostly used for vessels, the traditional shapes of the stone vases are more or less preserved although of course developed and amplified. This, however, does not exclude the possibility of copying natural forms for some shapes. Thus the Erimi handleless vessel (*Erimi*, pl. xxvi, 18) may have developed out of a natural shape, say a vase of leather. Consequently, as we have now evidence that the Red Polished pottery of the Bronze Age is not the oldest pottery pro-

¹ *Handbook*, pp. 11 ff.

² *Studies*, pp. 88 ff.

³ *Excavations at Erimi* (*R.D.A.C.*, 1936, part I).

⁴ See our *Preliminary Report on Khirokitia Excavations* in the same issue of *R.D.A.C.*, pp. 82 ff.

⁵ *Handbook*, p. 11.

duced in Cyprus, we have, in distinguishing types, to take tradition into serious consideration.

Another important element, on which typological classifications of the Red Polished ware were based, is decoration. Plain undecorated vases were naturally thought more primitive than others. Gjerstad¹ considers that most of the Red Polished I types are undecorated. This may hold good for the types known until then, but cannot be absolutely true, as for one thing the Bronze Age potter had at his back a considerable and long tradition of greatly developed decorative art, and he would not hesitate to decorate his pots even though the method of decorating changed. Nor was imagination lacking in him, as the Vounous excavations showed a deeply rooted creative imagination in every respect. Again, here, we must not speak absolutely, as, for example, the introduction of a new culture may interrupt tradition and create a transitional 'inartistic' period. This, however, does not seem to be the case, as the Red Polished deep bowl on pls. XII, 6 and LIV, 5, which comes from a necropolis opposite Erimi on the right-hand side of Kouris and which is definitely a 'neolithic' shape, is richly ornamented with incised ornamentation. The same applies to the two vessels on pl. LIV, 7, 8, which came from the same site and which are early types and quite elaborately decorated. A similar vase to these² was classified by Gjerstad under Red Polished III ware.

Vounous has revealed important types which follow a long and brilliant evolution. These types may not be altogether new, but in Vounous they have an individual life which renders the previous typological classifications inadequate. The example of the large bowls may first be considered. The only site yielding large bowls which can be satisfactorily compared with those of Vounous is Arpera. The bowls found in this site were attributed by Gjerstad³ to the Red Polished I type, while the tombs in which they were found were attributed to the earliest phase of the Bronze Age until then discovered.⁴ No large bowls of any similar size or shape which could be attributed to the succeeding types of the Red Polished ware were known until then. Vounous has now brought to light a great number of large bowls which stand in the line of tradition from Neolithic times and which follow a marked evolution in the Bronze Age. Some of these bowls have the shape of Gjerstad's Red Polished I bowls found at Arpera, but their ornamentation certainly places them among later types of the same ware.

If we compare the tomb-groups found at Vounous with those found by the Swedish Expedition at Lapithos,⁵ we notice a remarkable lack of large bowls in the Lapithos tombs. Vounous, on the contrary, during periods I and II,

¹ *Studies*, p. 94.

² *Ibid.*, pp. 112-113.

³ *Ibid.*, pp. 90 ff.

⁴ *Ibid.*, p. 267.

⁵ *S. C. E.*, pls. XIV ff.

shows a wonderful series of large bowls. Even the small bowls at Vounous are more abundant than those in the Lapithos tombs and have greater variety and longer evolution. On the other hand, Lapithos shows a preponderance of jugs, which form a monotonous series showing slow evolution. This shows that a typological classification based on the Lapithos material, or even the material existing previous to the Vounous discoveries, cannot cover all the ground, nor can it be looked upon as a fundamental fact or one on which the attribution of such or such tomb may be based in general. Vounous, on the contrary, has revealed types which show much wider activity, enabling us to form a framework in which the Bronze Age culture may be studied more adequately.

Besides the example of the large bowls other types of vases found in the Vounous necropolis may be mentioned. Thus the jugs show a much more consistent series than any series hitherto known. The classification of the pottery from Vounous has shown that nearly all the varieties of jugs begin with types which have typological affinities with shapes existing in the Neolithic period. These types are further developed into standard Bronze Age forms, and continue to evolve down to the end of the Early Bronze Age into varieties of greater number than hitherto known.

Vounous has also yielded a great number of so-called 'cultic' vases, i.e. bowls or goblets decorated with birds or animals perched on the rim. Such types were classified by Gjerstad under Red Polished III, under which all the fantastic, composite, animal-shaped vases and the pyxides were included. The description of the finds in the Vounous tombs has, however, shown that these types originated quite early, and that even if they developed more during an advanced period, they existed during earlier stages of the Bronze Age. Thus the large bowls shown on pl. x, *b, c*, which belong to a 'good period' and not to a period of 'tendency towards the superfluous, grotesque, and fantastic' and of a 'stylistic degeneration',¹ show that 'cultic' vases with modelled birds existed at an early stage of the Bronze Age; for it must be emphasized that the large bowls just mentioned belong, as far as shape is concerned, to Gjerstad's Red Polished I ware. Our period II is marked by more than one bowl decorated with birds perched on the rim, a fact which shows that this custom was not an invention of late times. It is true that the tombs of our period I have not yielded such types of vases, but this should be considered as a mere coincidence, as even when they appear in period II they are quite developed, a fact which proves that they have still earlier predecessors.² It can even be mentioned that in connexion with the type of goblets with a stem, bases belonging to

¹ Gjerstad, *Studies*, p. 122.

² This is proved by the discoveries made in 1937 by Mr. J. R. Stewart in an earlier part of the Vounous necropolis.

a similar type of vase were found at Erimi.¹ Similar remarks may be made in connexion with the composite vases and the pyxides, which are not a novelty introduced in late times, but have a previous history. After all, when the magnificent and most complicated vase shown in pl. xxxii c was made, other simpler forms must have been created before this vase, which shows culminating art, was undertaken.

This will suffice to prove that a typological classification must be taken relatively, and that mathematical statistics of typological series, such as used in the publication of the Swedish Cyprus Expedition for the dating of the tombs, may lead to generalities, which excavations in a more representative site may prove to be only relative.

The appearance of White Painted pottery in the Early Bronze Age was attributed by Professor Myres to the Middle Bronze Age;² later Gjerstad considered that it begins to appear at the end of the Early Bronze Age III period.³ Vounous has, however, yielded a great number of White Painted bowls and other shapes which show a long and uninterrupted tradition going back to a period much earlier than the end of the Early Bronze Age III. In the classification of the Vounous White Painted pottery we have seen that the Early types show a distinct influence of the Red Polished ware, and that some of the bowls belong to shapes which are current Red Polished ones of our Period I. Such is the hemispherical bowl with tubular spout and flat handle. We have at Vounous a long series of shapes (mostly bowls and jugs of composite form), which typologically must be placed before the standard Middle Bronze Age Painted ware which also occurs in Vounous, but in distinctly late tombs (37, 38, 40), which are attributed to our period III b.

The early appearance of the White Painted ware may be brought into agreement with the following two arguments:

(a) That the tradition of Painted pottery is not foreign to the Early Bronze Age potter, who, on the contrary, could not have lost all recollection of the White Painted pottery found in sites like Erimi, Ayios Epiktitos, Troulli, and all over Cyprus.⁴ In fact the aspect and feeling of the early White Painted pottery found in the Vounous necropolis are quite reminiscent of the Red on White pottery found in Erimi.

(b) Before the standard Red on White pottery of the Middle Bronze Age was definitely established, some sort of White Painted pottery must have preceded it, and formed the early stages of the regeneration, while the Red Polished pottery was still the dominant ware. This is, in fact, what happened in the Neolithic times.

There we see that the earliest Erimi layers have a predominance of Red

¹ *Erimi*, fig. 11, g, h.

² *Handbook*, p. 22.

³ *Studies*, p. 267.

⁴ *Erimi*, pp. 72 ff.

and a minority of Red on White wares. The latter develop slowly, until later in the upper layers they become important and characteristic wares.

This leads us to the conclusion that the White Painted pottery appeared earlier than hitherto thought, and that the theory that the White painted pottery makes its appearance at the end of Early Bronze Age III should be received with caution, although it must be remembered that the White Painted pottery, which was produced before the standard Middle Bronze Age, is different, and so far occurs only at Vounous.

Having thus laid down the reservations which the material discovered at Vounous puts on the existing typological classifications, and on some of the current theories on problems of relative chronological importance, we may now proceed to the problem of the absolute chronology of our Vounous tombs.

As already explained, the relative chronology of the Vounous tombs and their attribution into three periods has been based conjointly and simultaneously on the typological classification and the relative occurrence of types of fundamental importance in the different tombs. But it must be remembered that although early and later pottery types have been distinguished, the attribution of a tomb to a period is not decided upon mathematically by the numerical frequency of such or such types. The tombs have been considered as a whole and divided into groups, judging from the general artistic tendencies described in the classification of the tombs. But it may be that one given tomb may contain a few early and a few late types together with the main types which show the current art. This to my mind does not necessitate further division into sub-periods, and attribution of one single tomb to two or three such sub-periods. A mathematical statistic of the contents, even if justifiable in one necropolis, cannot hold good for every necropolis, and Vounous has shown serious divergences in the creation of different pot-types. For this reason I have attempted a typological classification and a relative chronology, as these were imposed by the material found at Vounous. As to the absolute chronology and the attribution to a general evolutionary scheme, connexions should be sought either with stratigraphical observations made in settlements, or with other necropolises.

We have seen that the study of the material found in the Vounous tombs necessitated their attribution to three distinct periods, I to III. We have also seen that period I is represented only by a few tombs, the small number of which does not permit a comprehensive study of the period. Similar observation applies to the period III b, which is represented by a few looted tombs, but which gives a sufficient picture of the period.

The attribution of these periods to a cultural scheme may be obtained

(a) either by trying to connect the earliest period represented in the tombs with the cultures which existed before the Early Bronze Age, or (b) by connecting the latest period represented in the tombs with the period which succeeded the Early Bronze Age, i.e. the Middle Bronze Age. Both alternatives will be discussed here.

The culture which existed immediately before the Early Bronze Age is best illustrated by Erimi. The general characteristics of this culture have been discussed in detail in our publication of the Erimi excavations, but may be here summarized for the convenience of this discussion. The pottery belongs to two big classes, the class of the Red wares and the class of the Painted wares. The latter class forms a prominent feature in Erimi II, i.e. in the Second and later part of this culture. The typical shapes are the deep bowl with straight, converging or diverging sides and the oval vessel with pointed base, rather wide neck and slightly flaring rim. Flint and bone implements in great numbers were found side by side with the pottery, while a copper tool was found at the beginning of Erimi II.

The characteristics of our Vounous period I are the following. The pottery is nearly always Red Polished. The shapes are deep bowls with flat bases, of types I a, I b, and large wide bowls, of type III b. The jugs belong to types III a and IV a. As already explained these shapes have some characteristics of those found in Erimi, but they already possess definite typological characteristics of the standard Red Polished ware. Moreover, shapes, such as amphorae, bowls, and others which have very little or no connexion with Neolithic types, appear side by side with the others.

We therefore have, on the one hand, the profound divergence in the quality of the wares, and secondly, the difference in the shapes. Erimi is characteristic of the White Painted, Vounous period I of the Red Polished wares. Though some of the shapes have general typological affinities with the Erimi shapes they nevertheless show that they are the result of long evolution. Other shapes are typical Bronze Age ones. The explanation of this contrast cannot be given completely at the present stage of our knowledge. Some important material brought to light in the past or recently offers a considerable addition to our knowledge. First of all, the deep bowl found in the necropolis opposite Erimi, on the right hand bank of Kouris (pl. LIV, 5) shows that the tradition of the Neolithic shapes found at Erimi is here more closely followed than in the shapes found in our Vounous period I.¹ The same applies to the two vessels on pl. LIV, 7 and 8, which were discovered on the same site. Moreover, the site of Arpera excavated by Mr. Markides in 1915² yielded a few types which show close

¹ With this bowl, another (pl. XII, a) now in the Cyprus Museum (no. A1310) should be compared.

² *Curator's Report*, p. 7.

connexions with the Erimi shapes. Such is the large deep bowl on pl. LV, 2, which was found in site Γ, tomb 1. This shows undoubted affinities with the large deep Erimi bowls,¹ although of course typological differences are evident. The same site (tomb 3) yielded a small handleless bowl with flat base and diverging sides, rim curving in (pl. LIV, 4). This is black inside and outside round the rim. This bowl is almost identical with the Erimi small bowls, and belongs to the black and red ware technique so common in the Bronze Age bowls, but yet already evidenced in the Erimi period.² Arpera yielded more shapes, of which some show evident influence of Neolithic shapes, although they mark a further stage than that of the deep bowl on pl. LV, 2. Such bowls appear in Gjerstad's p. 91, 9, which was found in site Γ, tomb 1, and on our pl. LV, 4, which was found in site Γ tomb 3. Moreover, Arpera yielded three vessels of Red Polished incised vessels (pl. xxxvii, *b*) of globular shape, flat base, wide neck, no neck-line and flaring rim. Two of these vases are handleless, though one has pierced projections on the upper part, and are clearly evolved from Neolithic shapes such as *Erimi*, pls. xvii, 5, xxvi, 20.

We therefore see that both the sites opposite Erimi and Arpera give evidence of unmistakable links between the Neolithic and Chalcolithic periods on the one hand and the early stages of the Bronze Age on the other. Moreover, the material found on these sites proves that a period, during which the pre-bronze shapes were copied, must have existed before the Bronze Age types were finally established. We must, however, emphasize the fact that this material compared with that of Erimi shows considerable evolution, a fact which indicates a long lapse of time between the two. Moreover, Arpera (as the Kouris site has not been scientifically explained) yielded only Red Polished ware, a fact which shows that the Red on White wares of the pre-bronze periods were temporarily abandoned. On the other hand, the incised ornamentation was already introduced and used with an advanced workmanship, a fact which shows substantial difference from the Painted ornamentation on the Erimi pottery.

Gjerstad considered that the Arpera tombs 101, 103 *bis* (i.e. tombs 1 and 3 *bis*) represented the earliest Bronze Age strata found up to the time he was writing his 'Studies'. He acknowledged, however, that these tombs contained, besides pottery of the Red Polished I, shapes of the Red Polished II ware. In other words, he acknowledged that this early stage of the Bronze Age was not found pure, but mixed up with the next stage. This observation corroborates our theory that there must have existed a stage of closer affinity with the pre-Bronze cultures and of pure 'Early Bronze Age I'.

¹ *Erimi*, pl. xxvi, 19.

² It is to be observed that Gjerstad overlooked the Arpera deep bowl on our pl. LV, 2, the small bowl (pl. LIV, 4), and the two vessels on xxxvii, *b*.

The problem of the early stage of the Bronze Age has, however, been greatly elucidated by the further exploration of the Vounous necropolis by Mr. J. R. Stewart.¹ On a part of the necropolis called site A, about 500 yards east of the area excavated by ourselves, and later in collaboration with the Louvre,² Mr. Stewart opened twenty-five tombs, which are all characterized by the use of pottery with a marked 'stump' base and offer a less developed series of shapes than the usual Early Bronze Age types. The 'stump' base mentioned here is certainly a characteristic evolved from the Neolithic types such as those found in Erimi (*Erimi*, fig. 11, A, B, F, K, L). This same 'stump' base occurs also on the large deep bowl from Arpera shown on pl. LV, 2, and certainly marks an early stage in the Bronze Age. This stage, however, cannot be placed side by side with the Erimi culture, nor can it be considered as its immediate successor, as even with the marked similarities with the Neolithic material the shapes show considerable evolution, which must have taken place slowly within a long space of time. On the other hand, the tombs of our period I, and especially tombs 35 and 41, contained vases which had this 'stump' base (pls. XLIV, 1, XLV, 1, 1, 3),³ a fact which is important, as it shows that our period I touches that early period, found by Mr. Stewart and partly represented by some of the Arpera tombs. But while the Arpera tombs were only few, and represented unsatisfactorily that early stage of the Bronze Age, the Vounous tombs of site A, explored by Stewart, illustrate that period fully. It therefore results that a whole period must be established beyond our period I (which is really the end of this new period), into which the Arpera tombs and the site opposite Erimi have to be attributed. But as this new early period cannot be placed side by side with the end of Erimi we must suppose a transitional period between the end of Erimi and the beginning of this early period.⁴ In other words, we have the following scheme :

- A. End of Erimi.
- B. Transitional period: unknown.
- C. Period represented by site A explored by Stewart at Vounous, to the end of which our period I may be attributed.

¹ *Antiquity*, xi (1937), p. 356.

² Schaeffer, *Missions en Chypre*, pp. 26 ff.

³ But the stump base on these examples is less enhanced.

⁴ Casson (*Ancient Cyprus*, pp. 26 ff.) puts forward the theory that the marked difference between the Neolithic or Chalcolithic pottery and that of the Early Bronze Age, as this is known from the tombs, is due to a non-occupation period between the ancient Neolithic and the preliminary Bronze Age. To my mind this theory has against it the fact that the shapes of the pottery found at Vounous, site A, have definite affinity with those of Neolithic times, a fact which proves the continuity of the cultural tradition and which justifies my theory of a transitional period with closer resemblances to the neolithic culture. This tradition is reflected as late as our period I, during which the Bronze Age culture abandons the neolithic tradition and becomes entirely individual with standard characteristics.

The first part of the connexions of our Vounous tombs with other material is therefore dealt with. The second part concerns the connexion of the latest of our Vounous tombs with known stratigraphical or other archaeological material.

We have seen that our tombs 37, 38, 40, which belong to period III b, contain specimens of the standard White Painted ware of the Middle Bronze Age (pls. LV, 12, LVI, 1, 2, 3*a*, 4). Gjerstad, through stratigraphical observations made by him in the settlement at Kalopsida,¹ was able to identify four distinct periods, of which the earliest is formed by layers VII-V. These layers contained a predominance of Red Polished ware and a minority of Black Slip and White Painted I-III wares. These layers are, according to Gjerstad,² identical with the upper strata of the Alambra stratification and tombs, and are consequently attributed to the Early Bronze Age (Early Cypriot) III period. The White Painted vases found in tombs 37, 38, 40 may be classified under Gjerstad's types I-II, and we therefore do not hesitate to attribute these tombs and the whole of our period III b to the end of Early Bronze Age or Early Cypriot III. This attribution is corroborated by the marked increase of Black Polished ware which is in agreement with Gjerstad's stratigraphical observations.³

The date of the end of Early Cypriot III and of the beginning of Middle Cypriot I is fixed with a sufficient degree of accuracy to the year 2100 B.C. We, therefore, have here an important limit *ante quem* for our Vounous material. If we now turn to the scheme previously proposed for the succession of cultures after the end of Erimi which is placed about 3000 B.C.,⁴ we may obtain the following dates:

- A. 3000 B.C.: end of Erimi.
- B. 3000-2800 B.C.: transitional period not yet explored.
- C. 2800-2500 B.C.: period represented by site A at Vounous, Arpera tombs, site opposite Erimi.

We have seen that our period I belongs to the end of period C above, and therefore may be attributed to the years 2600-2500 B.C. Thus we have the limits 2600 and 2100 between which our Vounous material may be distributed. The following scheme may, therefore, be proposed:

- 2600-2500 B.C.: period I, belonging to the end of period C, above.
- 2500-2300 B.C.: period II.
- 2300-2100 B.C.: period III.

These periods correspond to the following divisions of the Early Bronze (Early Cypriot) Age.

Period I: Early Cypriot I c.

¹ *Studies*, pp. 268 ff.

³ *Studies*, p. 267.

² *Op. cit.*, p. 270.

⁴ *Erimi*, p. 69.

Period II : Early Cypriot II.

Period III : Early Cypriot III.

The equation of period I with Early Cypriot Ic is proved by the pottery shapes which are comparable with those of Lapithos Tomb 303 A, Burial group I (see *S.C.E.*, i, p. 47, pls. xiv, xciv), which is accepted by Stewart (*Palestine Exploration Quarterly*, July, 1939, p. 167) as corresponding with Early Cypriot Ic, i.e. the end of Early Cypriot I. We, therefore, see that our Vounous material represents, through a few tombs, the end of Early Cypriot I, but mostly Early Cypriot II–III. On the contrary the tombs excavated by Stewart in site A belong nearly all to the Early Cypriot I period. This means that the site excavated by ourselves, called by Stewart site B, forms a continuation of site A and complements it fully. The Vounous necropolis therefore (sites A and B) represents an uninterrupted sequence from Early Cypriot I to the end of Early Cypriot III touching the Middle Bronze or Middle Cypriot I.

The dates attributed to our periods I–III are remarkably corroborated by finds of foreign importation found either in the Vounous tombs or in Lapithos.

The first of these objects which concerns the dating of our period I is a white plain jar of Syrian or Palestinian origin found by Stewart in tomb 164 B of site A at Vounous¹ which belongs to Early Bronze Age or Early Cypriot Ic–E.C. II a. This vase is approximately attributed to a period corresponding to Beisan XIII, i.e. roughly 2800–2600 B.C., which date is also suggested by Dr. Fisher.

Early Cypriot Ic–IIa, to which this imported vase belongs, is approximately contemporary with our period I which according to the dating proposed here dates to 2600–2500 B.C., which is not far off the lower limit of the date of the imported vase.

The second which concerns our period III is the dagger shown on pl. LX, 14 found in tomb 19. As explained before, this dagger belongs to a Cretan type of the transitional period between E.M. III and the beginning of M.M. I, and appears to be an importation from Crete. It, therefore, provides a wonderful confirmation of our dating. Tomb 19 belongs to period III, which has been attributed to 2300–2100, which are also the limits of the E.M. III to M.M. I periods.²

The third object of foreign importation is the E.M. III vase found by the University of Pennsylvania Expedition in Lapithos in 1931,³ which again confirms the proposed datings, although the tomb in which this vase was found

¹ *Palestine Exploration Quarterly*, July 1939, p. 162 ff.

² The date of M.M. I is furnished by the haematite cylinder of Babylonian origin found at Platanos, which may be dated c. 2100 B.C. (Pendlebury, *op. cit.*, p. 121).

³ See Casson, *Ancient Cyprus*, p. 207.

has not been published, and we are not in a position to judge its relative chronology.

CONCLUSION

I have discussed elsewhere the importance which the material excavated in the necropolis of Vounous as well as the recent neolithic discoveries have on the study of the internal evolution of prehistoric Cypriot culture, and especially on the problem of the chronology (relative and absolute) of the Bronze Age civilization. I have shown that the existing theories both on typological evolution and on fundamental characteristics of the pottery of the Bronze Age have to be amended in the light of the new discoveries. I may now examine the question whether the study of the new material may have any importance on the existing theories on the origins of the Bronze Age civilization of Cyprus, and its connexions with civilizations of the surrounding mainland.

Before the discovery of the Neolithic civilization, mostly found at Khirkitia and Erimi,¹ the problem of the origins of the Bronze Age civilization of Cyprus was a matter of repeated discussion and controversy.² The wealth of material revealed in the Early Bronze Age tombs in the whole of Cyprus puzzled everybody. How did the Red Polished pottery, the characteristic ware of the Early Bronze Age, appear in such a developed form as regards both quality of ware and variety of shape without a previous stage justifying this growth? The significance of a sudden appearance of a 'Red Polished' civilization had a wider effect on the problem of the different 'Red ware' civilizations which seem to have existed on most of the neighbouring mainland, i.e. Egypt, Syria, and Palestine, Asia Minor, eastern and western.³

Our concern here is not this wide problem: what interests us mainly is the origin of the Red Polished civilization of Cyprus and its connexions with the mainland. Whether the new aspect which the Cypriot internal problem now takes, and which is here discussed, will affect at all the general one is a matter for consideration.

One query appears to suggest itself strongly: Is it really necessary now to dwell so much on the idea that some foreign origin for the Red Polished ware of Cyprus should be sought? The answer appears to be mainly negative, and we shall explain why. We may, however, remark that at the bottom of all the speculations, or nearly all,⁴ made on this problem, one idea seemed to pre-

¹ *Excavations at Erimi*.

² For a résumé of the discussion see Gjerstad, *Studies*, pp. 294 ff.

³ Myres, *J. R. A. I.*, xxxiii, pp. 367 ff.; see also Gjerstad, *Studies*, p. 301.

⁴ Professor Myres (*J. R. A. I.*, xxvii, 171) suggested a Cypriot origin for some part of the Early Bronze culture of Europe, and adduced as an argument the distribution over Asia Minor and South-eastern Europe of a group of pottery fabrics with characteristic Red Polished technique.

vail, and that was that the Red Polished technique of Cyprus must be connected with the forms of similar technique in a foreign country or countries. The justification for this, as said before, was that no culture previous to the Bronze Age had been discovered until then.

A survey of the main theories put forward on the matter is here necessary.

Professor Myres examined originally the question of the Red Polished culture of Cyprus in connexion with the general problem of that culture occurring on the mainland, and considered that Cyprus was the base of a commercial connexion which had a north-westerly direction (see note 4, p. 165). Further, light thrown on the same culture enabled him to reconsider the problem of the distribution of this culture in Asia Minor and of the origins of the Red Polished technique.¹ Evidence suggested to him the idea that Egypt might, probably, be the place of origin of the Red Polished technique. When writing about the Early Bronze Age in Cyprus in particular Professor Myres said that 'the Red Polished pottery exactly resembles that of predynastic Egypt in its fabric; but it substitutes forms so exclusively imitated from gourds and skin vessels, that it seems reasonable to suppose that the art of pot-making was introduced in an advanced phase from the mainland into an island culture which had used only perishable vessels before; the rather sudden apparition of a fine fabric of pottery would thus be fully explained'.

Gjerstad² discussed all the theories previously put forward, discarded nearly all of them, and lastly adopted Mr. Ormerod's theory of the definite similarity of the Tchai-Kenar (in South-western Asia Minor) Red Polished pottery with the Cypriot,⁴ and amplified it. He thought that even the clay itself, the firing and the lustrous slip, and the shapes of both wares were identical, and inferred that these similarities showed that one of these cultures must have separated from the other and that in particular it was the Cypriot culture which separated from that of Asia Minor. Gjerstad supplemented this theory by another one concerning the earliest working of copper in Cyprus. He suggested that 'the working of copper was not a Cyprian invention at all, but came to Cyprus with the first invaders from Anatolia, who brought the making of red pottery akin to that of Yortan. They were copper users when they arrived and naturally exploited the Cyprian stores of the metal to good advantage.'⁵

The fundamental argument which now shakes all these theories is that Cyprus possessed well developed Neolithic and Chalcolithic cultures, attributed to the fourth millennium, and mostly represented in Khirokitia and Erimi. The

¹ *J. R. A. I.*, xxxiii, pp. 367 ff.

² *Handbook of the Cesnola Collection*, pp. xxviii ff.

³ *Studies on Prehistoric Cyprus*, pp. 298 ff.

⁴ *B. S. A.*, xvi, pp. 99 ff.

⁵ Hall, *Civilization of Greece in the Bronze Age*, p. 33, note 2.

Red Polished ware of the Bronze Age is, therefore, not the first pottery in Cyprus. The problem which concerned 'the sudden appearance of the Red Polished pottery of a greatly developed form and shape', a problem which was in fact at the bottom of all the efforts to find an origin for that pottery, no longer exists. The Red Polished ware does not appear all of a sudden in an island which used utensils of perishable material beforehand, but on the contrary it has a long and prolific tradition of pottery-making at its back.

I have shown elsewhere that our period I appears to be the last stage of a period during which vases with strong neolithic tradition were produced, and that periods I-II slowly develop these types and render them standard Bronze Age shapes. I have also shown that a great number of elements in the pottery have their counterparts not only in the Erimi period but right back on stone vases of the Khirokitia period. It therefore follows that the Red Polished pottery of the Bronze Age represents a culture which, to a large extent, may be considered as the outcome of the pre-copper cultures. Here we must, however, point out that there is a missing link, which should be placed between the end of Erimi and the beginning of the earliest period of the Bronze Age now discovered. The evident affinity of the types representing the earliest phase of the latter Age, so far discovered with the Neolithic ones, gives hopes that this link will one day be found.

The continuity of the cultures is furthermore proved by the following corroborating facts: the Red Polished ware of the Bronze Age is not the first to be produced in Cyprus. A Red Polished ware is found at Khirokitia, and varieties of Red Polished ware are in existence all through the Erimi culture.¹ Nor need the abandonment of the painted wares of the Erimi culture and their substitution by Red Polished wares of the Bronze Age surprise us. A similar phenomenon occurs twice in prehistoric Cyprus, first in course of the Erimi times when red wares gradually retrograde and give place to the painted wares, and, secondly, at the end of the Early Bronze Age when the Red Polished ware gradually gives place to the painted wares of the Middle Bronze Age. Another fact of importance which proves the continuity is the occurrence first in the early part of the Early Bronze Age of a kind of pottery of a bichrome style obtained by reserved bands of buff against the red slip,² and secondly of the early White Painted ware found by us in Vounous and already appearing in an early stage of the Early Bronze Age. This shows that the technique of painted wares of the Erimi culture did not entirely disappear, and tends to confirm our theory of a transitional stage of gradual abandonment of those

¹ *Excavations at Erimi*, pp. 26 ff.

² *Antiquity*, xii (1938), p. 500. Similar ware already occurs in the Khirokitia period and is represented in the Erimi culture.

wares. One more fact should be mentioned: the technique of the partly red, partly black vases which, as Frankfort thinks, derives from Anatolia (*Studies*, ii, 79) already occurs in Erimi (*Excavations at Erimi*, p. 57). It therefore appears that there is no necessity to look for a foreign origin of the Red Polished culture of Bronze Age Cyprus and that, on the contrary, there is evidence showing that this culture is largely the evolution of the previous cultures.

There remains, however, the fact that together with or alongside the vases of the Early Bronze Age showing marked tradition from Neolithic times, occur shapes which bear elements unrepresented in Neolithic times or connected with shapes occurring in Asia Minor, western or eastern.¹ The small distance between Cyprus and Anatolia is a sufficient explanation. Copper trade may also have started between Cyprus and Anatolia, a fact which developed the relations of the two countries and brought the two cultures into close contact.² Following this, Cyprus slowly abandons the old traditional forms and introduces new types and elements, which are applied according to new requirements. The natural tendency of the Cypriots towards pottery-making found an opportunity to absorb new elements and produce the wonderful shapes of Red Polished ware in such great variety and wealth as are not found elsewhere.³ At the outset, i.e. before our period I, the culture reflects old tradition on a large scale, while the new elements are received with caution and grafted on the old forms. Later, when the traditional forms are more and more abandoned, the foreign elements are freely accepted, and the culture takes a new direction and a new vigour, reflected in the wonderful series of vases discovered by us in the Vounous necropolis. The development in pottery coincides with that in social life, agriculture, religion, etc., so well depicted by the various models and other documents described in this paper.

The extraordinary promptness of the Cypriot potter to choose foreign models and give them an individual character is further proved by the new method of decoration, the incised and relief, applied on the Red Polished pottery. Both techniques are in use in Asia Minor,⁴ and it is quite possible that the Cypriots learnt them from that country, but having at their back a long

¹ K. Bittel, *Prähistorische Forschungen in Kleinasien*, pl. III ff. See also Schaeffer, *Missions en Chypre*, p. 38, where the comparison of a vase with face modelled on the neck with the 'face urns' of Troy II, is emphasized. The resemblance of the forms and decorative elements of the Red Polished ware with those of Yortan and Hissarlik is also confirmed by Myres in a recent article published in *Iraq*, vi, 1, p. 75.

² Myres, *J. R. A. I.*, xxxiii, p. 377 and *Iraq*, vi, 1, p. 75. On the occurrence of copper weapons of Cypriot type in Asia Minor and Syria see also Schaeffer, *Missions*, pp. 47 ff.

³ Casson, *Ancient Cyprus*, p. 28.

⁴ Bittel, *op. cit.*, pls. III, IV, VI, VIII, XI, XII, etc.; also W. Lamb, *Excavation at Kusura* (*Archaeologia*, lxxvii, pl. VII); of the same author, *Excavation at Thermi*, pls. VIII-XVII; and Ormerod, *B. S. A.*, xviii, 83 ff. and pl. v ff.



Black-topped Red Polished bowl. T. 29:55 ($\frac{1}{2}$)

Archaeologia, Volume 88, published by the Society of Antiquaries of London, 1940



a. White Painted horn. T. 18:32 (1)



b. White Painted bowl. T. 2:32 (1)



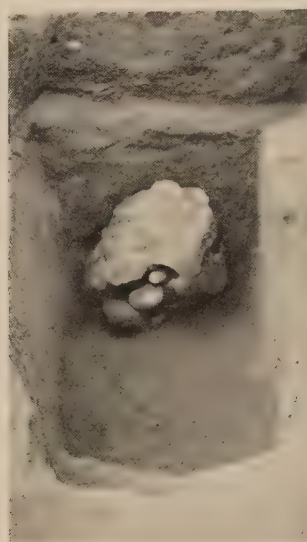
a. The site of the Vounous Necropolis looking towards the Kyrenia mountains.



b. Tomb 6



c. Tomb 8



d. Dromos of Tomb 11



a. Tomb 13



b. Tomb 13



c. Dromos of Tomb 38



d. Tomb 27



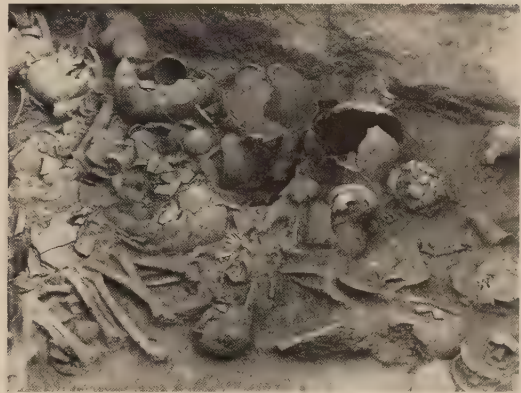
a. Dromos of Tomb 32



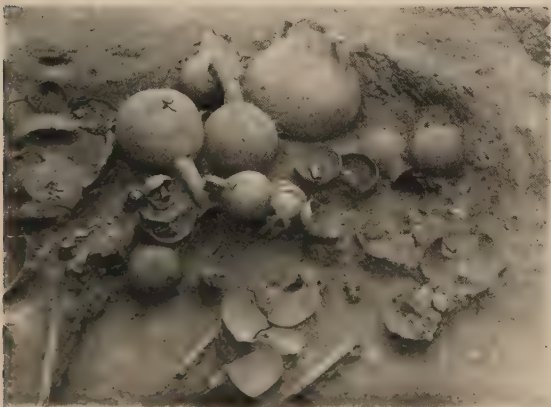
b. Tomb 32 A



c. Tomb 35



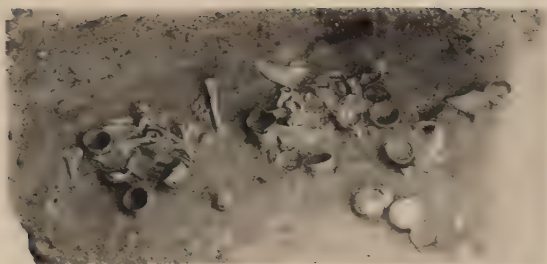
d. Tomb 36



e. Tomb 36



f. Tomb 36



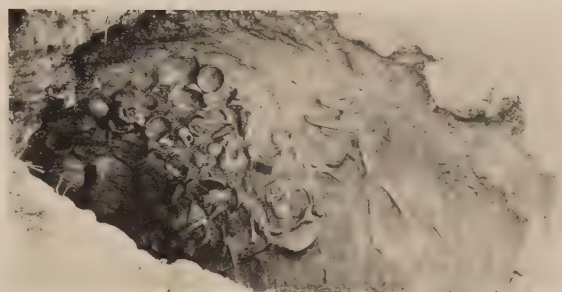
a. Tomb 36



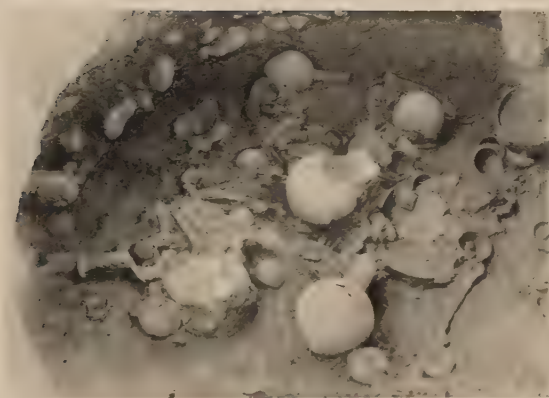
b. Dromos of Tomb 41



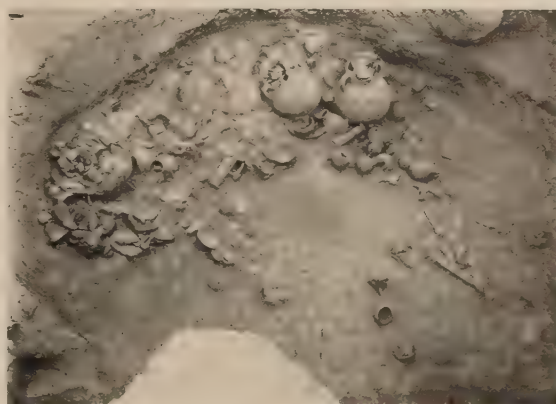
c. Tomb 41



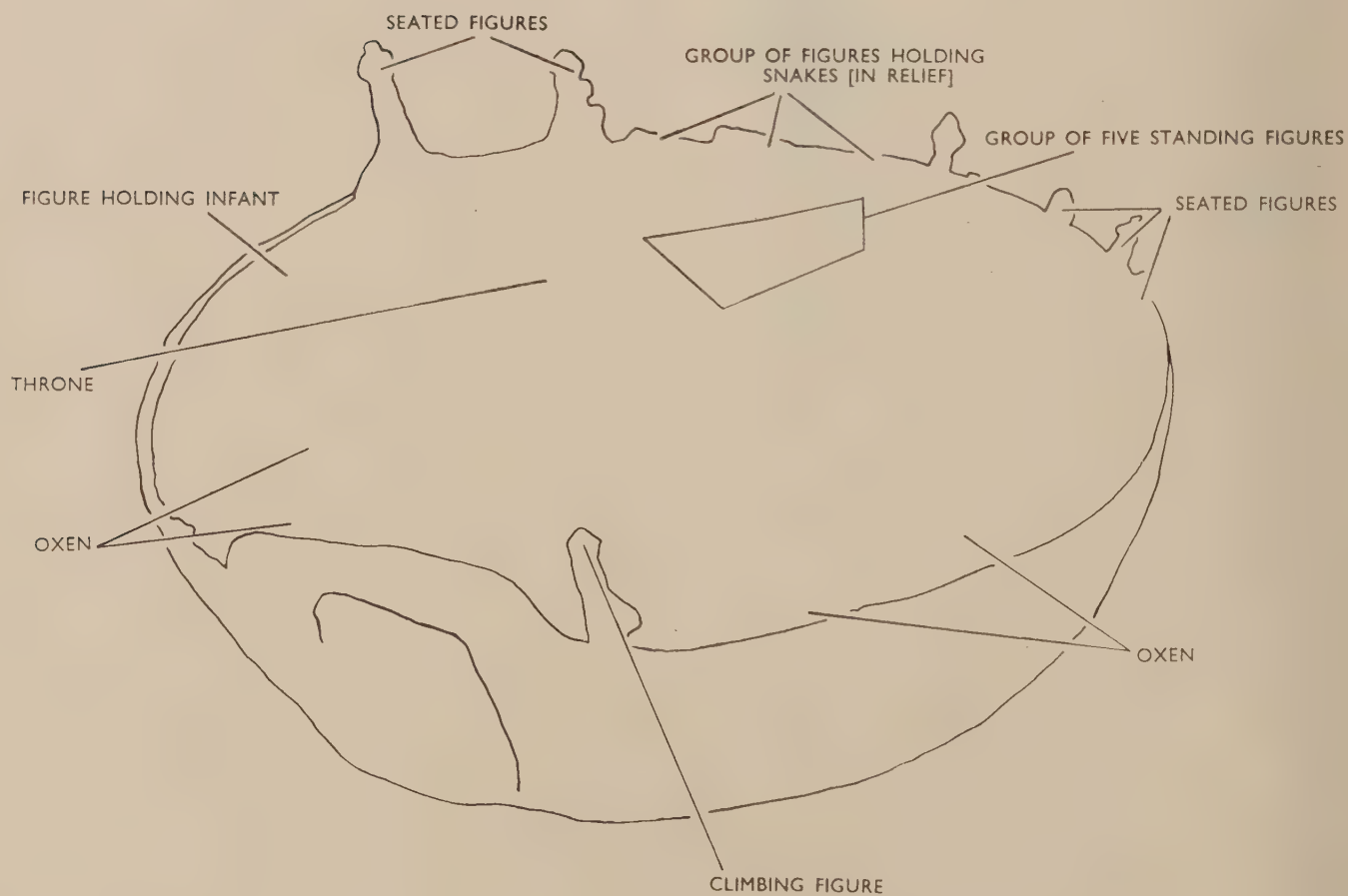
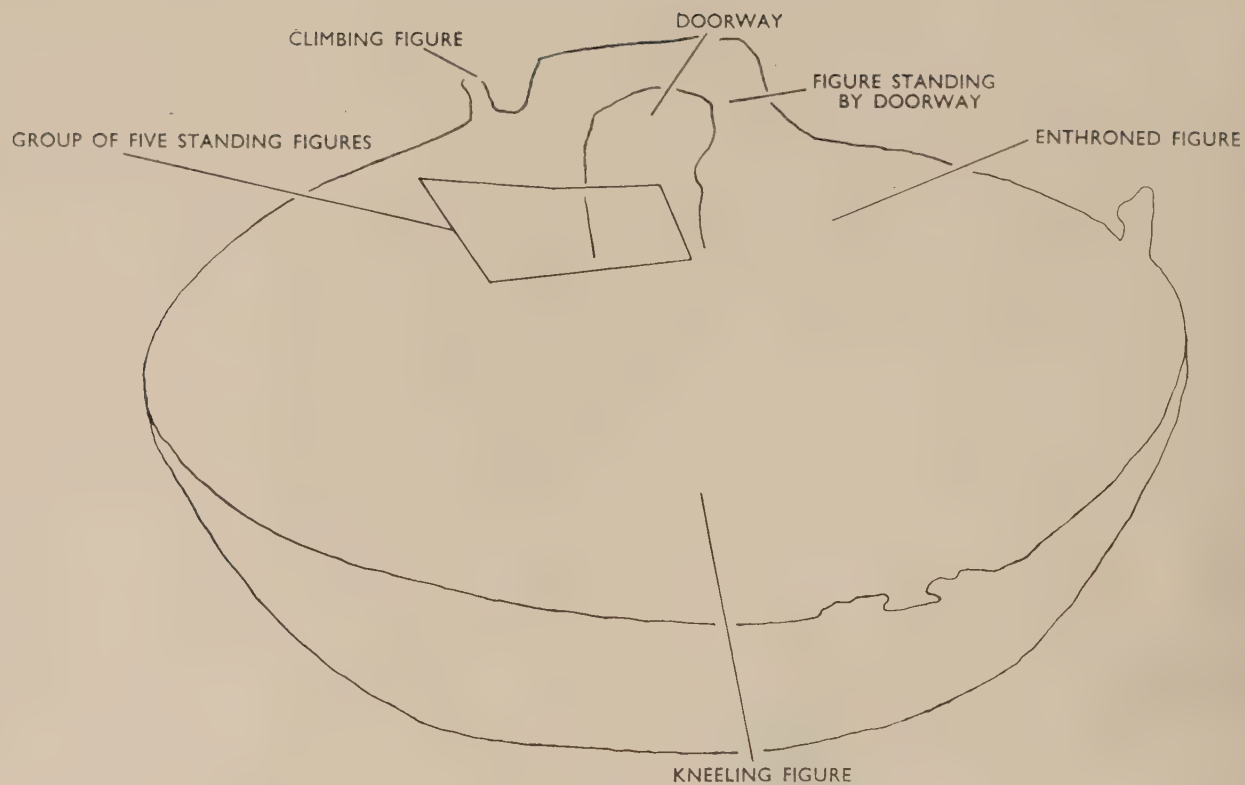
d. Tomb 45



e. Tomb 42

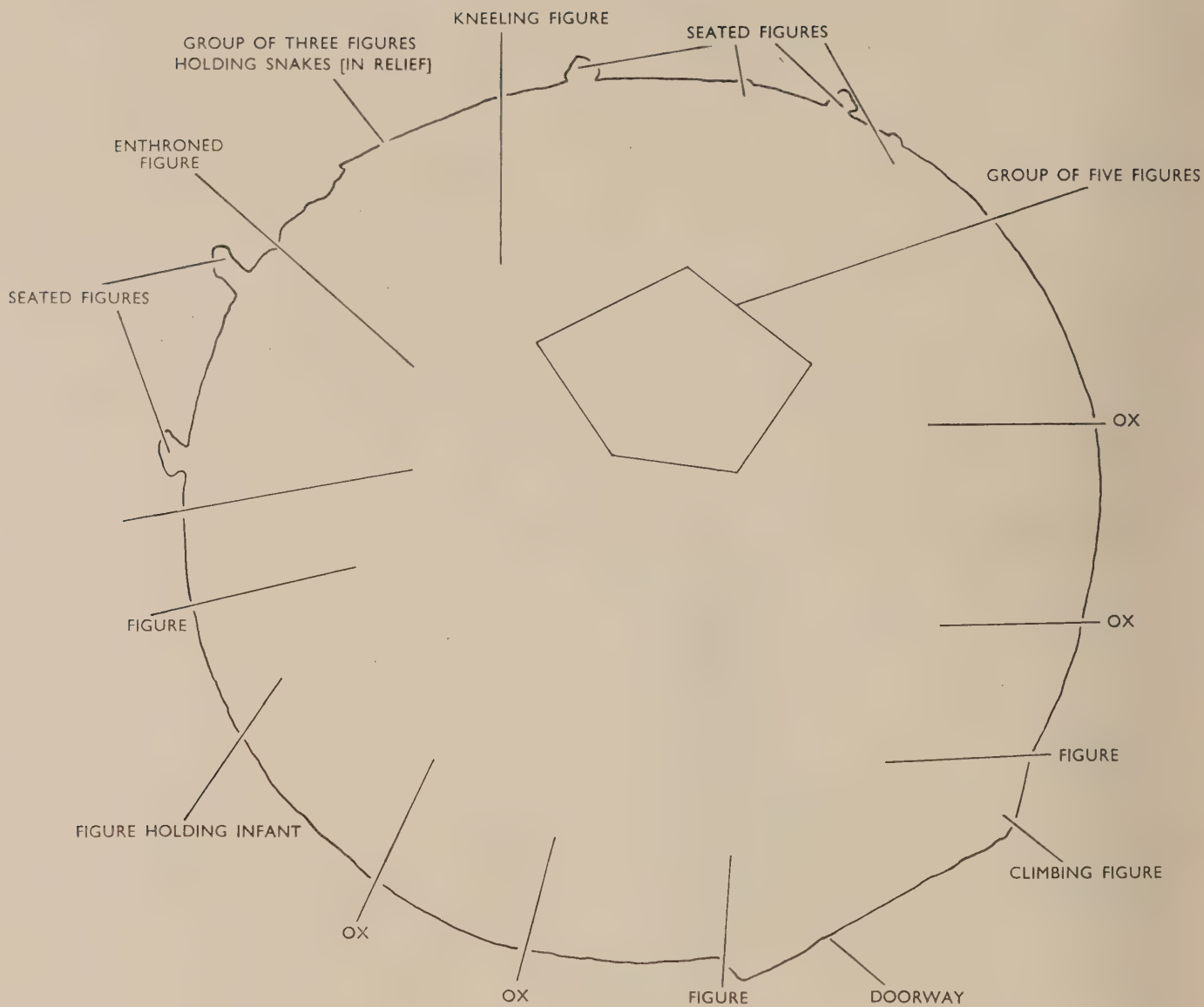


f. Tomb 47



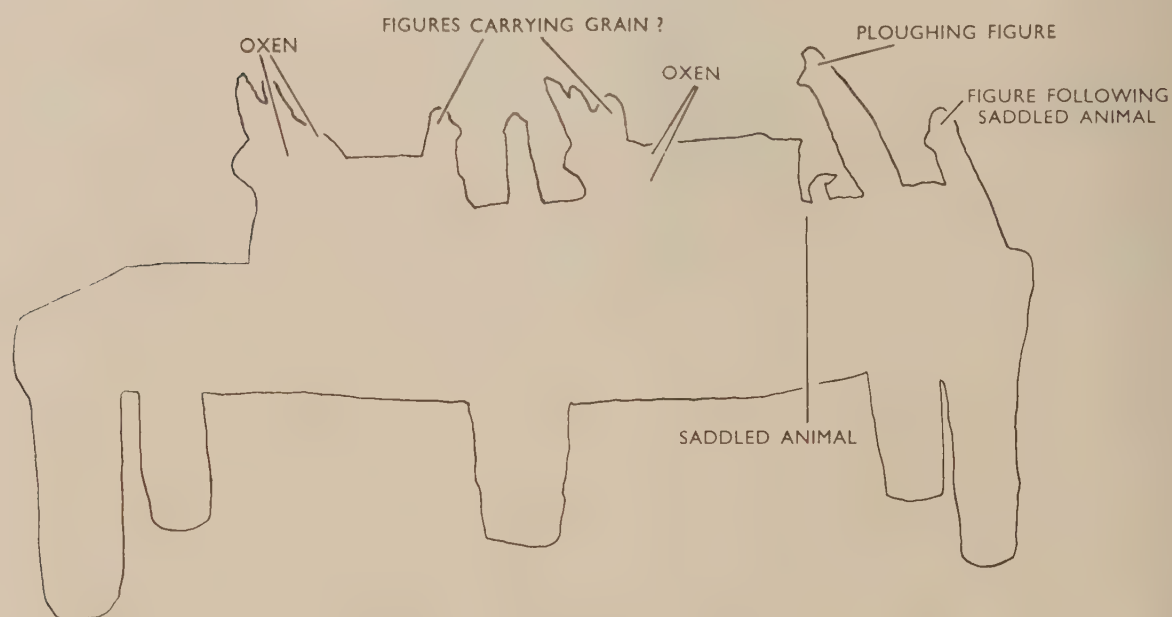
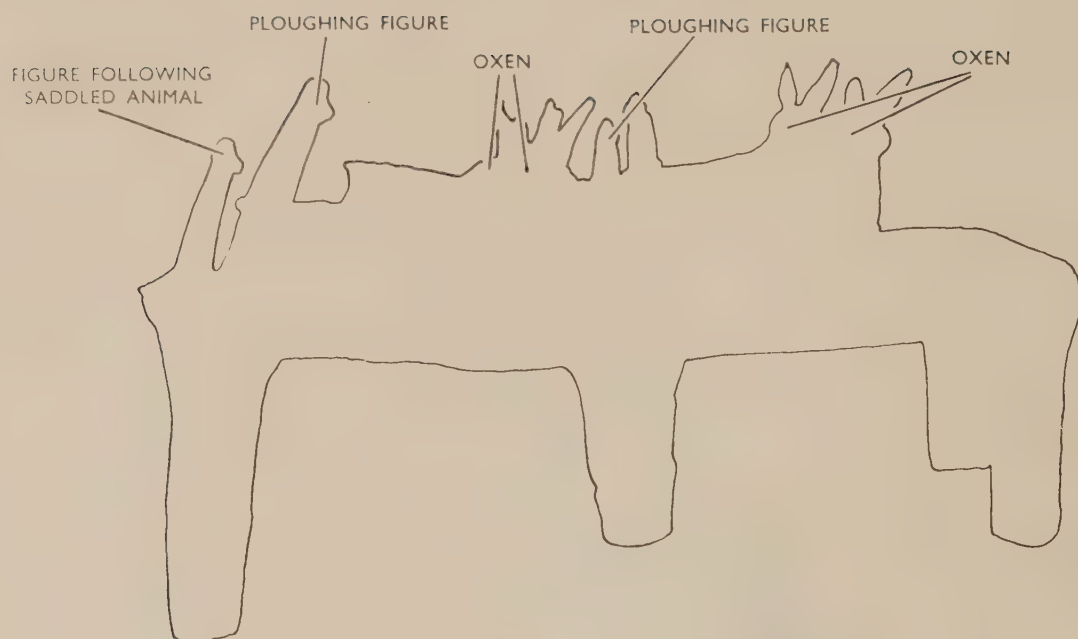


Clay model of Sacred Enclosure. T. 22: 26. ($\frac{2}{3}$)



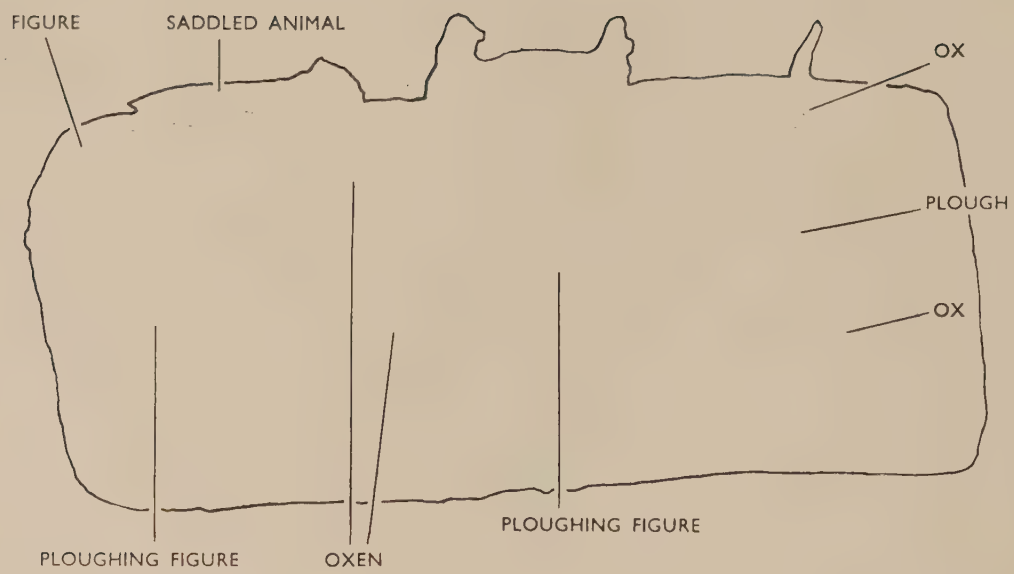


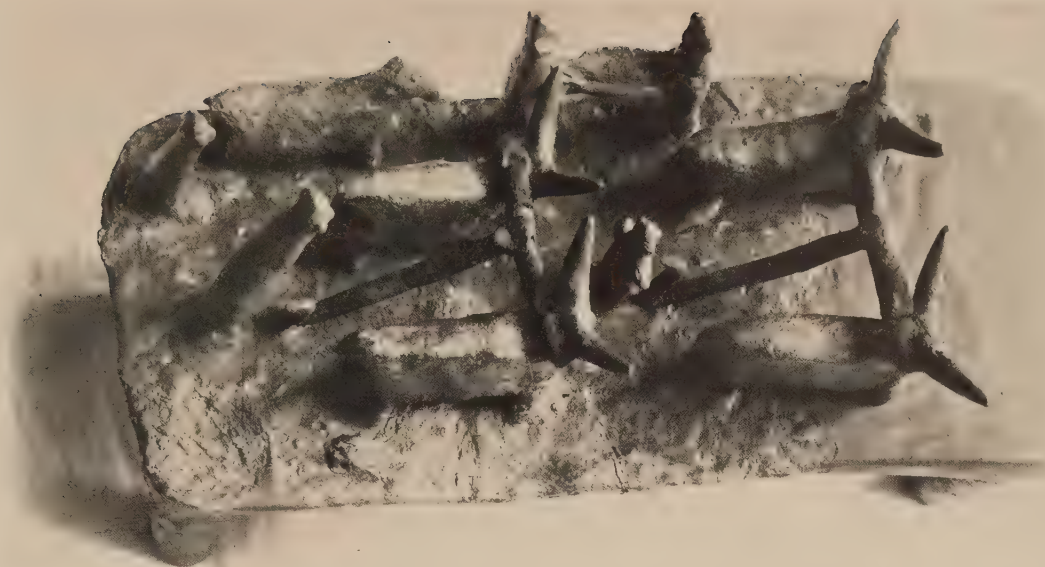
Clay model of Sacred Enclosure; view from above. T. 22: 26. (3)



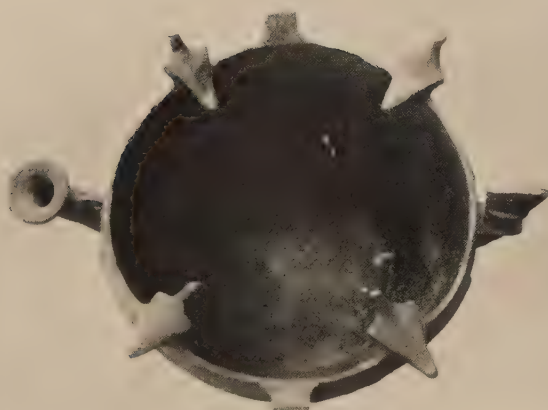


Clay model of ploughing scene; special series no. 1. (1/3)





a. Clay model of ploughing scene; special series no. 1. ($\frac{1}{8}$)



b. Special series no. 2. ($\text{c. } \frac{1}{8}$)



c. T. 2: 83. ($\text{c. } \frac{1}{8}$)



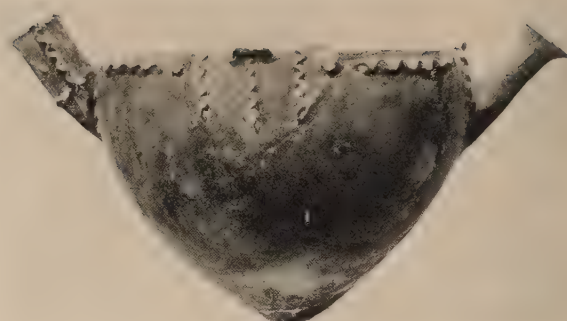
d. T. 18: 7. ($\text{c. } \frac{1}{8}$)



e. T. 13: 23. ($\text{c. } \frac{1}{8}$)



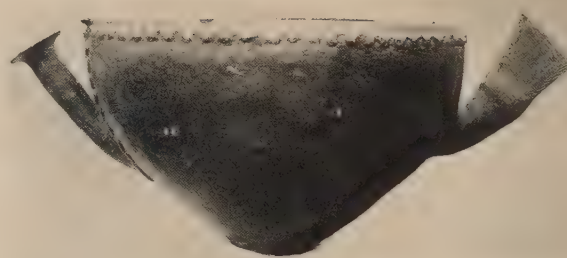
a. T. 6: 101



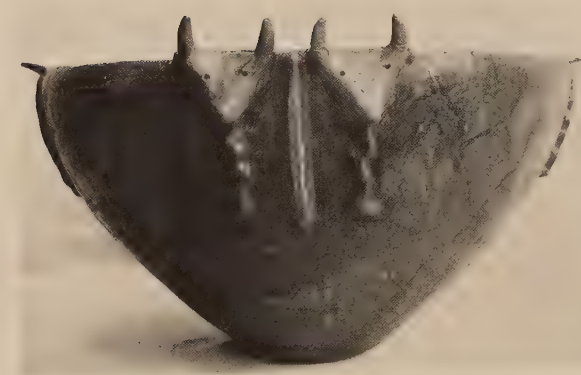
b. T. 15: 10



c. T. 13: 115



d. T. 13: 52



e. T. 36: 10



f. T. 15: 13

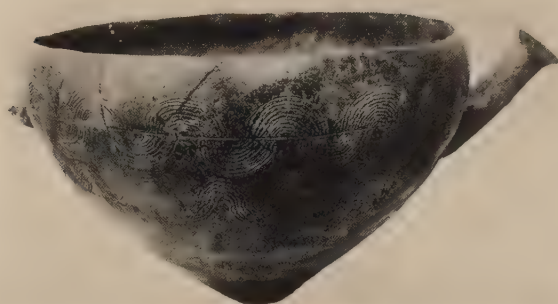
Red Polished, large bowls. (c. $\frac{1}{8}$)



a. C.M. no. A. 1310. ($\frac{1}{8}$)



b. C.M. no. 1935, $\frac{111-4}{2}$. ($\frac{1}{8}$)



c. T. 36: 63. ($\frac{1}{8}$)

a-c. Red Polished ware: bowls



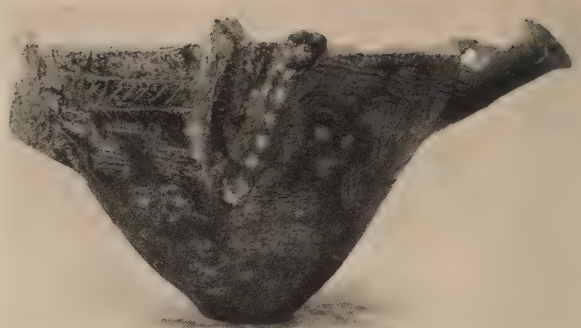
d. Red Slip ware. T. 41: 62. (c. $\frac{1}{2}$)



e. Red Polished Goblet. T. 9: 55. (c. $\frac{1}{2}$)



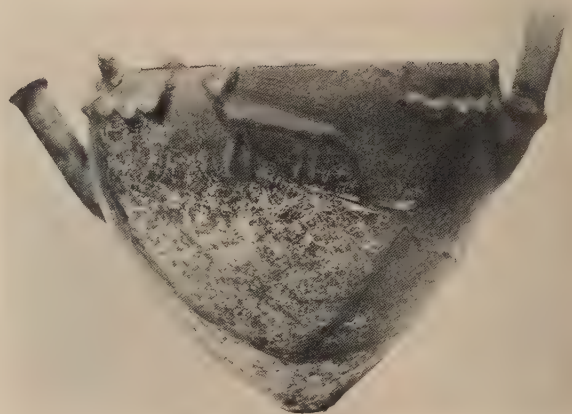
a. T. 17: 6



b. T. 9: 95



c. T. 36: 22



d. T. 29: 55



e. T. 20: 3



f. T. 8: 16

Red Polished, small bowls. ($\frac{1}{3}$)



✓ a. C.M. no. 1933, $\frac{VI-7}{7}$. ($\frac{1}{2}$)



b. T. 36: 142. ($\frac{1}{2}$)



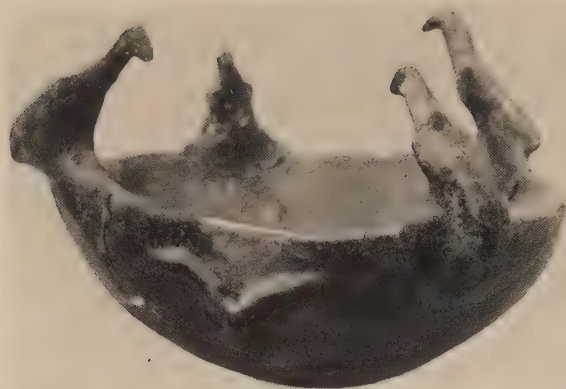
c. T. 2: 77. ($\frac{1}{2}$) , /



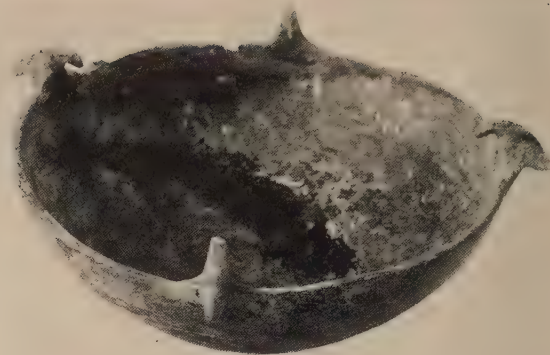
d. T. 22: 25. ($\frac{1}{2}$)

Red Polished ware

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a. Bowl. T. 27: 113. ($\frac{1}{3}$)



b. Bowl. T. 29: 22. ($\frac{1}{3}$)



c. Goblet. Special series no. 3. ($\frac{1}{3}$)



d. Goblet. Special series no. 4. ($\frac{2}{5}$)

Red Polished ware



a. Red Polished goblet. T. 5: 16. ($\frac{2}{5}$)



b. Red Polished goblet. T. 8: 17. ($\frac{1}{3}$)



a. T. 5: 3



b. T. 11: 19



c. T. 2: 167



d. T. 32 A: 7



e, f. Special series no. 5



Red Polished jugs. (b)



a



b

Red Polished jug with ploughing scene. T. 37: 9. (*a* $\frac{1}{3}$; *b* c. $\frac{1}{1}$)

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a. T. 39: 8



b. T. 39: 8



c. T. 24: 15



d. Special series, no. 6



e. T. 37: 83
Red Polished jugs. (1/6)



f. T. 19: 10



b

a

Details of necks of jug T. 19: 10, pl. XIX, d. (1)

Archaeologia, Volume 88, published by the Society of Antiquaries of London, 1940



a



b



c



Red Polished jug with grinding scene. Special series no. 7. (*a* $\frac{1}{1}$; *b*, *c* $\frac{1}{3}$)



b
a. Detail of T. 34: 49 (pl. xxiii, *a*); *b.* Detail of T. 15: 60 (pl. xxiii, *b*). (1)



a

Archaeologia, Volume 88, published by the Society of Antiquaries of London, 1940



a. T. 16: 26



b. T. 15: 60



c. T. 15: 43



d. T. 34: 49

Red Polished jugs. (b)



a. Detail of Red Polished jar. Special series no. 8. ($\frac{2}{3}$)



b. Detail of T. 34: 49 (pl. xxiii, *d*). ($\frac{1}{2}$)



a. T. 9: 161. ($\frac{1}{6}$) ✓



b. T. 47: 85. ($\frac{1}{6}$) ✓



c. T. 46 A: 23. ($\frac{1}{6}$) ✓



d. T. 12: 94. ($\frac{1}{6}$) ✓



e. T. 37: 114. ($\frac{1}{6}$) ✓



f. T. 37: 114. ($\frac{1}{6}$) ✓

Red Polished jugs



a. T. 22: 28



b. T. 8: 91

Red Polished composite vases. ($\frac{1}{2}$)

Archaeologia, Volume 88, published by the Society of Antiquaries of London, 1940



a. T. 19: 5. ($\frac{1}{3}$)



b. T. 9: 84. ($\frac{1}{3}$)

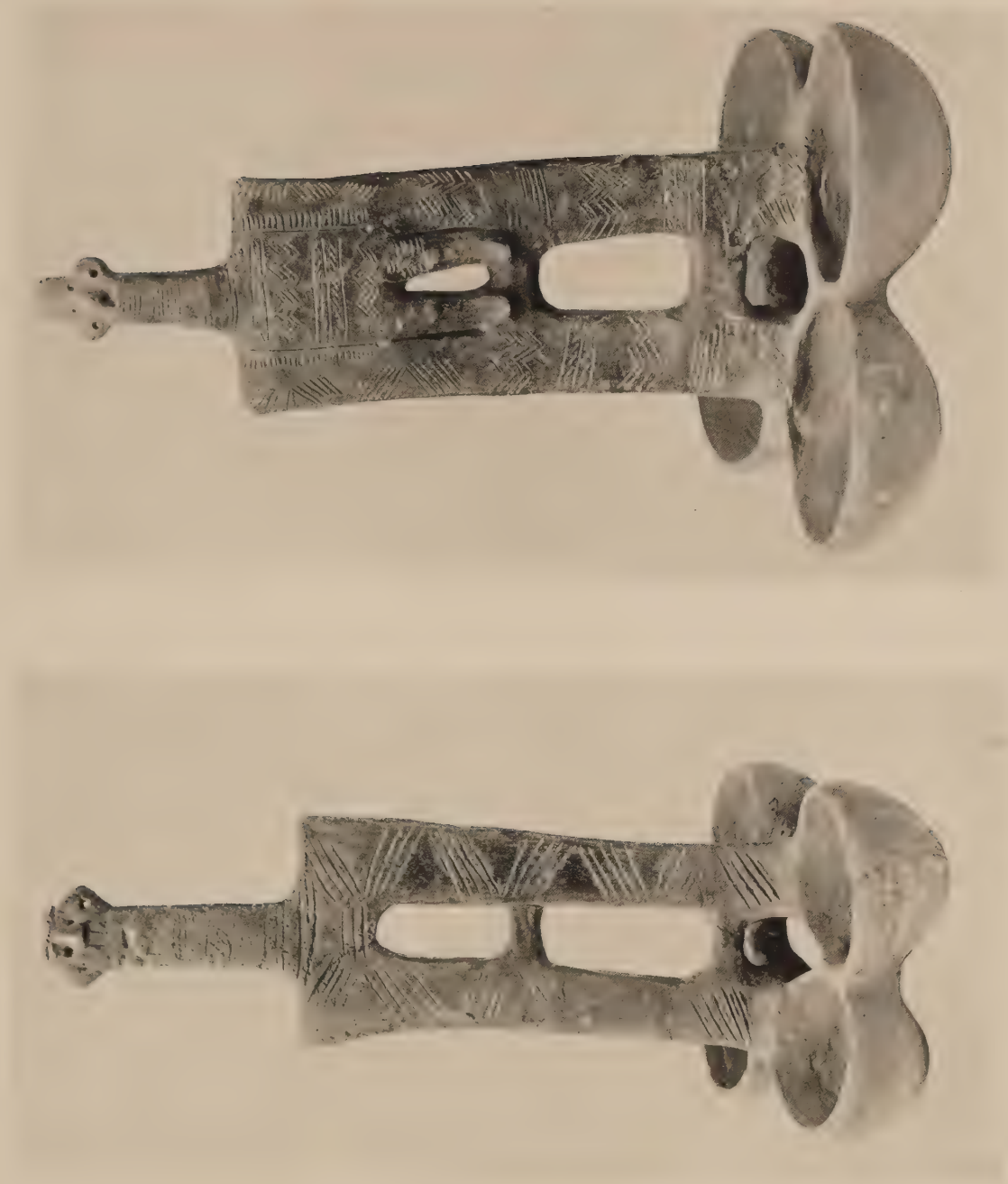


c. T. 7: 29. ($\frac{1}{4}$)



d. T. 48: 2. ($\frac{1}{5}$)

Red Polished composite vases



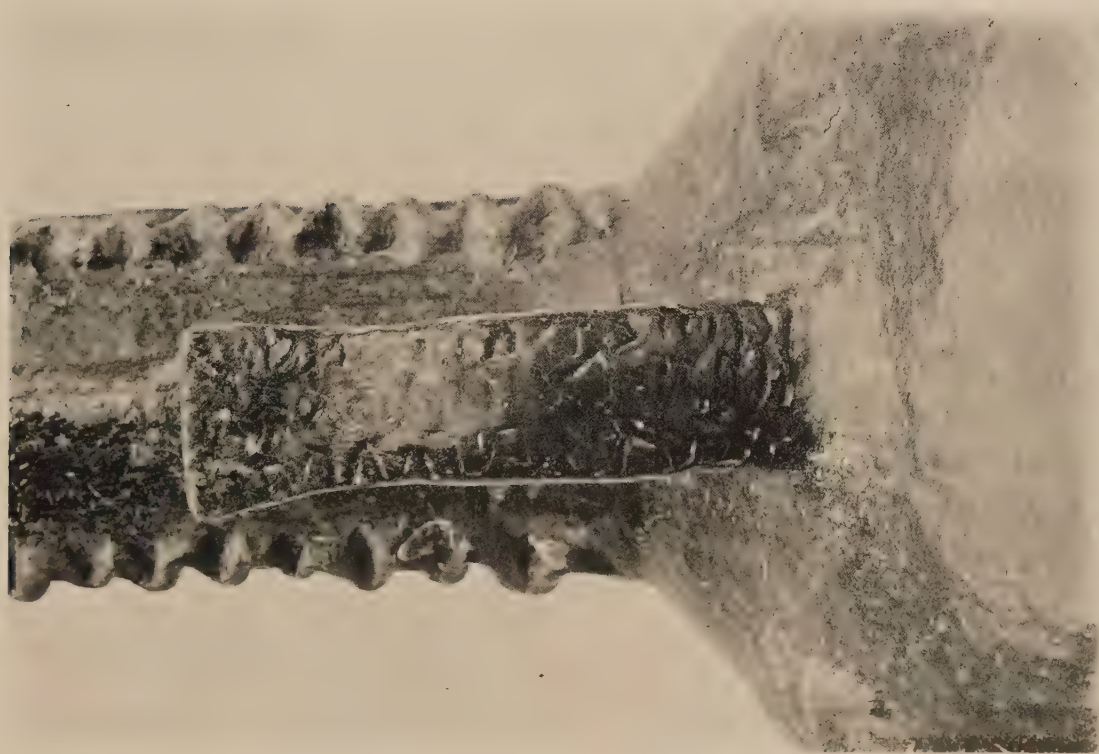
a *b*
Red Polished composite vases. Special series nos. 9 and 10. ($\frac{1}{3}$)

Archaeologia, Volume 88, published by the Society of Antiquaries of London, 1940



a. Red Polished models of dagger and sheath. T. 45: 14-15
(slightly under $\frac{1}{2}$)

b. Plain White ware. Bottle. T. 8: 47 (rather over $\frac{1}{2}$)



a. Detail of jug with inscribed handle. T. 19: 9 (rather under $\frac{1}{2}$)



b. Detail of composite vase. T. 48: 2 (pl. xxvii, *d*) (rather under $\frac{1}{2}$)

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a. T. 13: 85. ($\frac{1}{4}$)



b. T. 15: 50. ($\frac{1}{4}$)



c. T. 9: 149 (rather over $\frac{1}{2}$)



d. T. 15: 29. ($\frac{1}{4}$)

Red Polished composite vases



a. Gypsum plank-shaped idols. T. 2: 14, 15. ($\frac{1}{4}$)



b. Red Polished composite vase. T. 8: 97. ($\frac{1}{8}$)



c. Red Polished composite vase. T. 19: 67. (c. $\frac{1}{8}$)



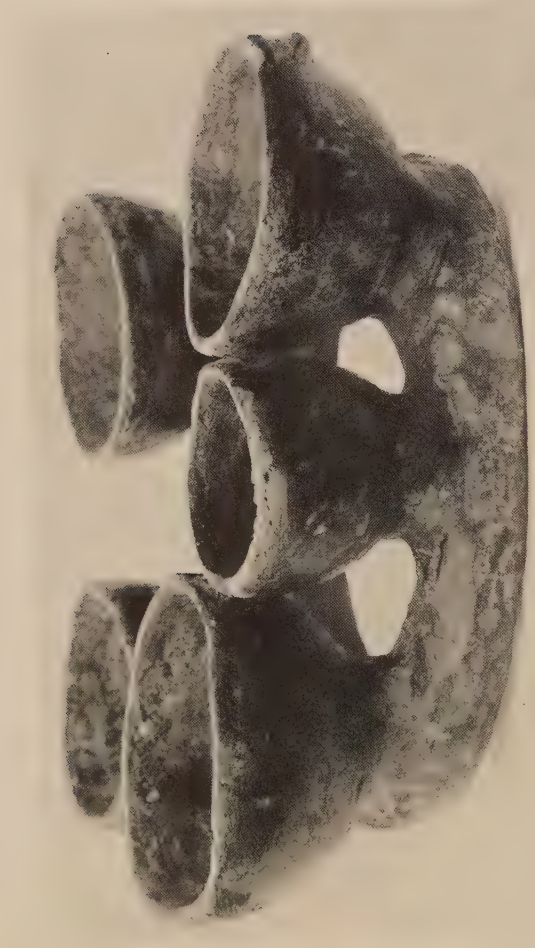
d. Red Polished composite vase. T. 9: 73. ($\frac{1}{2}$)



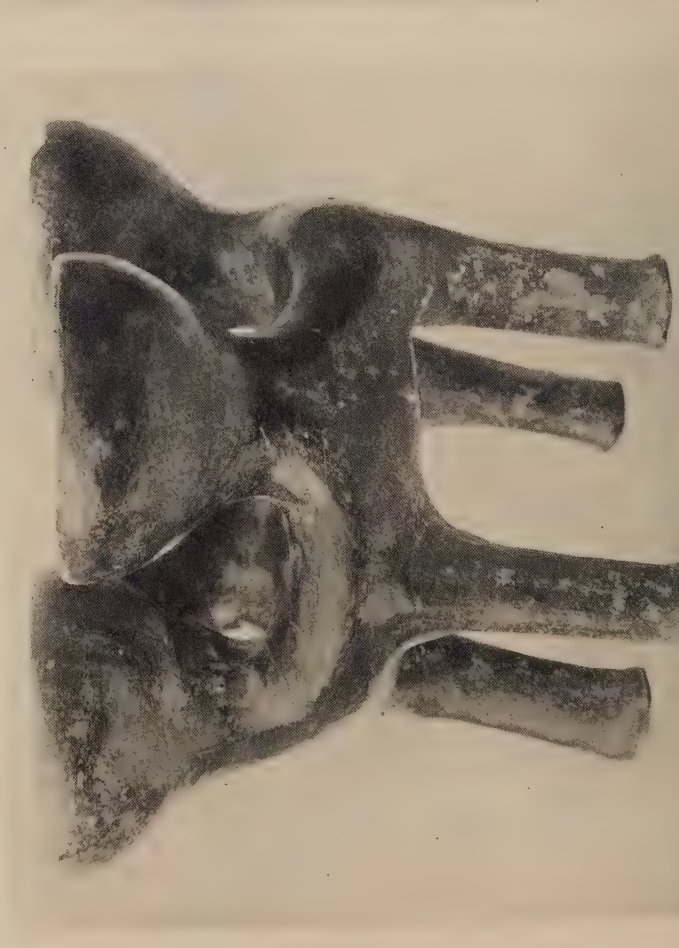
b. Table for offerings. T. 9: 63. ($\frac{3}{4}$)



d. Red Polished ring vase. T. 36: 12. ($\frac{3}{8}$)



a. Red Polished ring vase. T. 29: 33. ($\frac{4}{5}$)



c. Red Polished ring vase. T. 17: 19. ($\frac{1}{2}$)

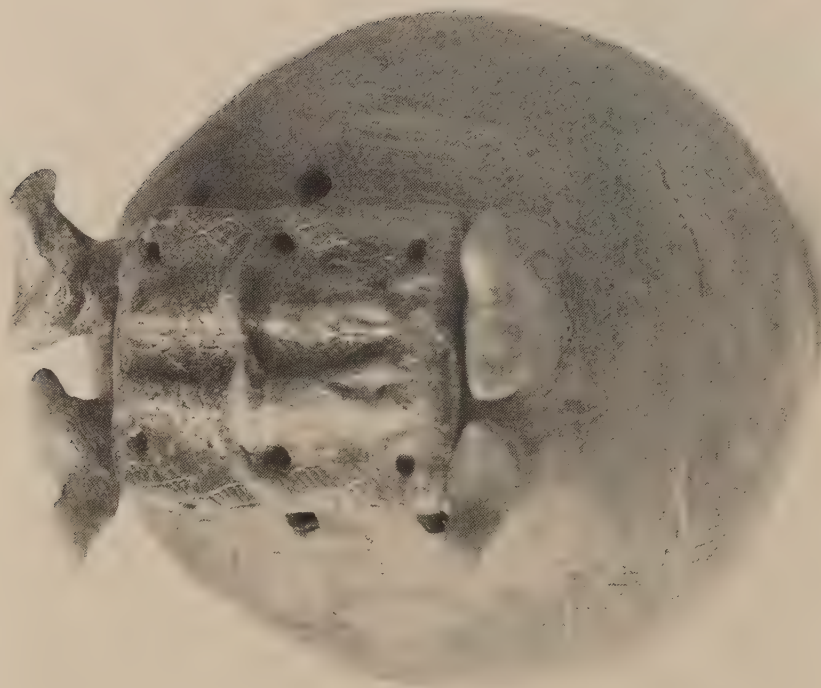


a. T. II: 55

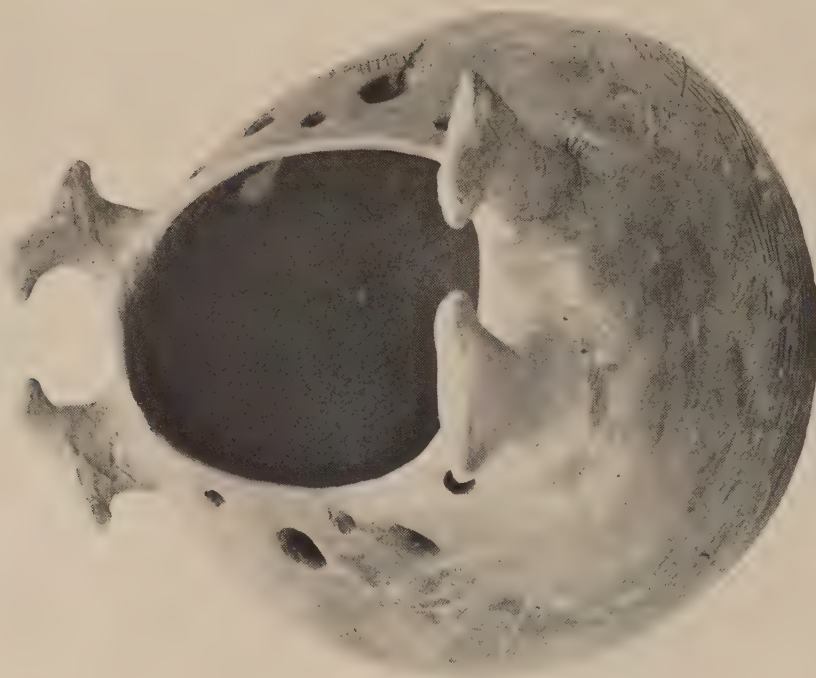


b. T. I: 22

Red Polished pyxides. (Slightly over $\frac{1}{2}$)



a. T. 37: 84



b. T. 37: 93

Red Polished pyxides. ($\frac{1}{2}$)

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a. T. 2: 91



b. T. 47: 23

Red Polished pyxides. ($\frac{1}{2}$)



a. Red Polished pyxis. T. 9: 35. (Rather over $\frac{1}{2}$)

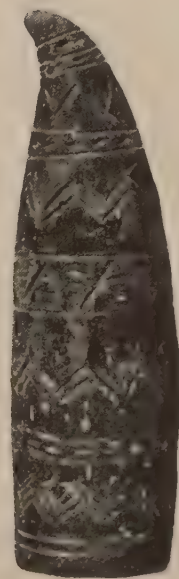


b. Red Polished vases from Arpera. (Slightly under $\frac{1}{4}$)



a. Horns of Red Polished ware. T. 36: 96, 109. ($\frac{1}{2}$)

b. Horn of Red Polished ware.
T. 9: 105. ($\frac{2}{3}$)



c. Model of brush. T. 9: 27. ($\frac{1}{2}$)

d. Handle of jug. Special series
no. 11. ($\frac{1}{2}$)

e. Horn of Red Polished ware.
T. 9: 61. ($\frac{2}{3}$)



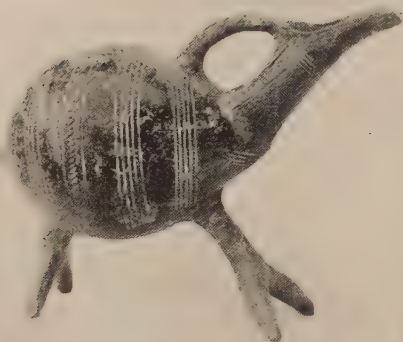
a. T. 47: 22. ($\frac{1}{2}$)



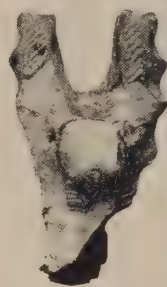
b. T. 11: 44. ($\frac{1}{2}$)



c. T. 13: 94. ($\frac{1}{2}$)



d. T. 32: 6. ($\frac{1}{3}$)



e. T. 37: 100. ($\frac{1}{2}$)



f. T. 38. (side chamber): 9. ($\frac{1}{3}$)



g. T. 23 A: 31. ($\frac{1}{3}$)



h. T. 34: 43 ($\frac{1}{3}$)

Objects of Red Polished ware; e is Black Polished

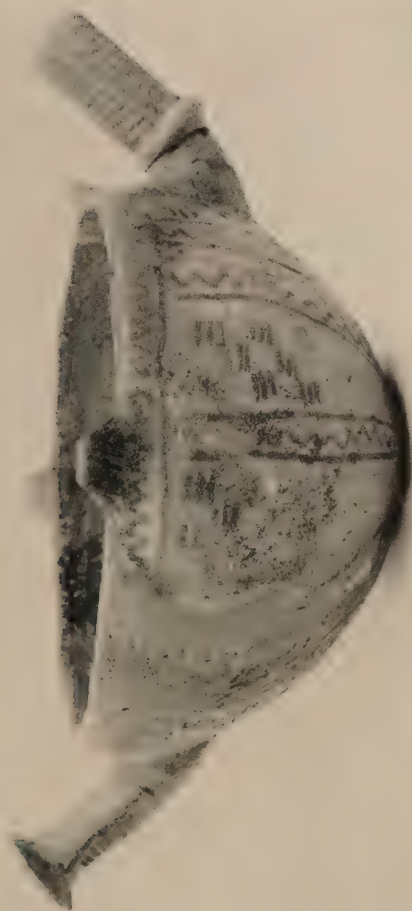
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b. T. 7: 20



d. T. 3: 26



a. T. 2: 166



c. T. 21: 11

White Painted bowls. (1)

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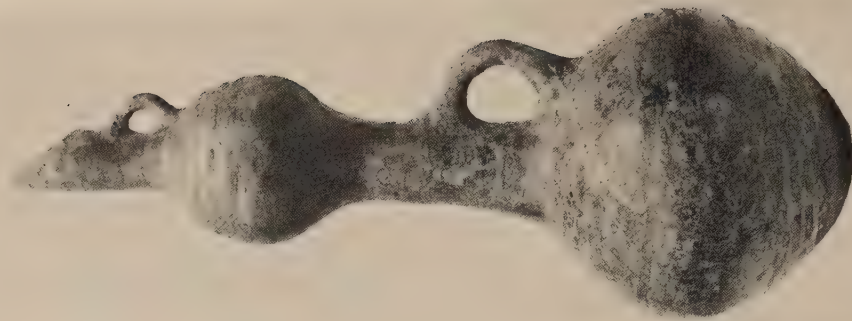


a. T. 18: 32. ($\frac{1}{2}$)



b. T. 12: 25. ($\frac{1}{2}$)

White Painted ware



c. T. 5: 14. (Rather under $\frac{1}{2}$)

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a. T. 13: 86. ($\frac{1}{5}$)



b. T. 19: 89. ($\frac{1}{2}$)



c. T. 26: 79. ($\frac{1}{4}$)



d. T. 19: 22. ($\frac{1}{4}$)



e. T. 15: 109. ✓
($\frac{1}{4}$)



f. T. 13: 83. ($\frac{1}{4}$) ✓



g. T. 33: 82. ($\frac{1}{4}$) ✓

Bronze Objects



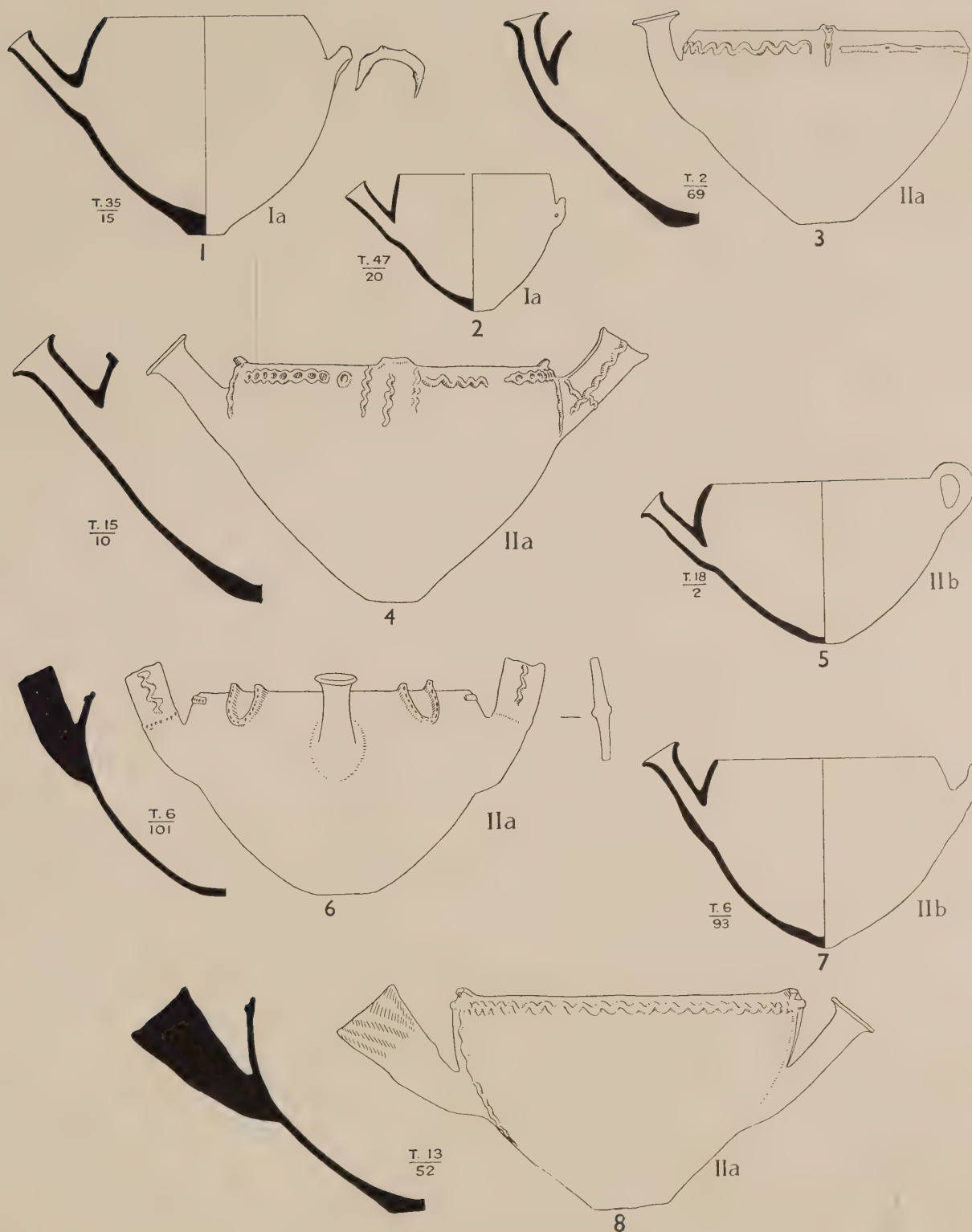
a. Red Polished vase. C.M. no. 1933 $\frac{1-2.5}{1}$. ($\frac{1}{1}$)



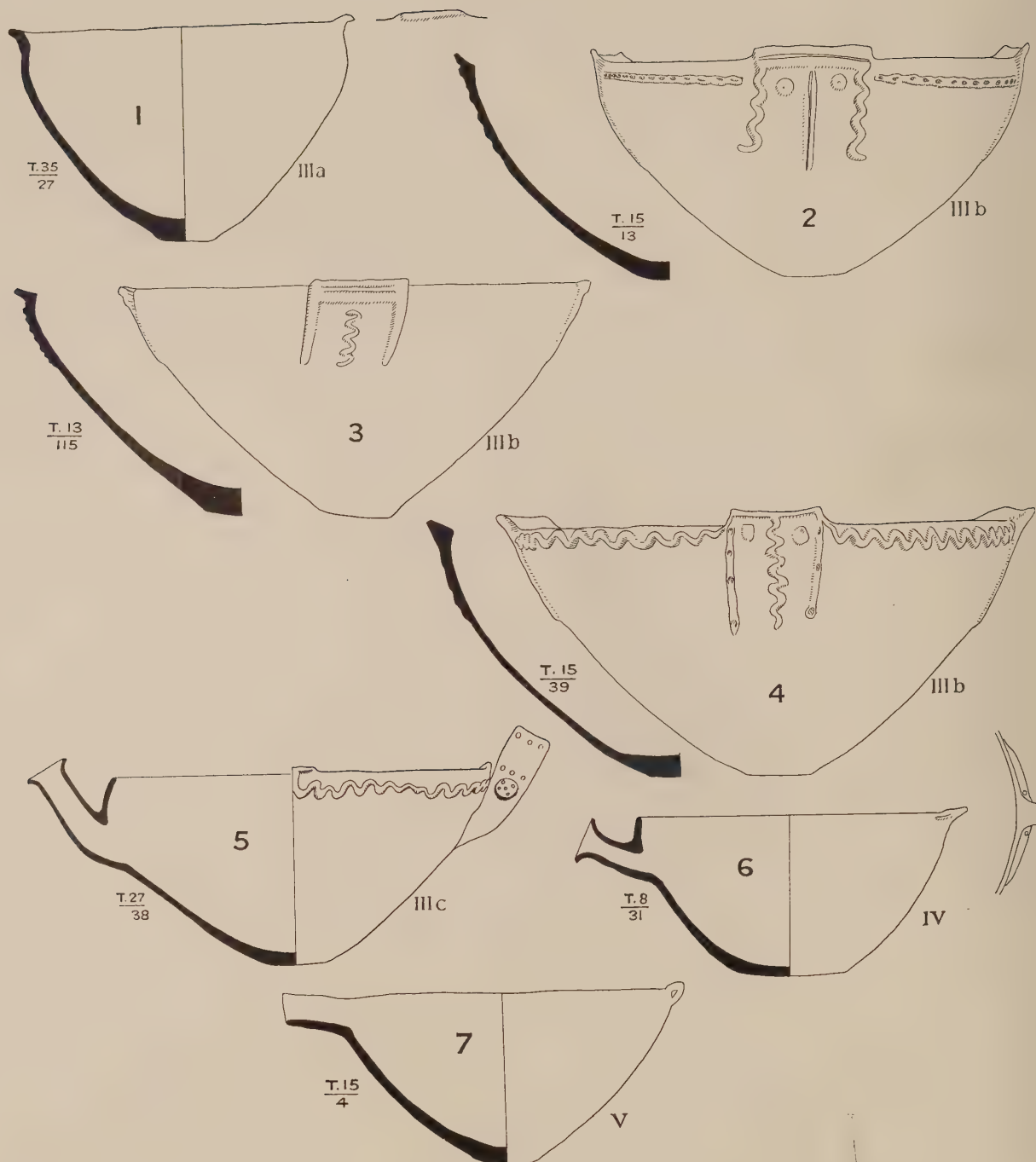
b. Red Polished vase. C.M. no. A 1804. ($\frac{1}{1}$) ✓



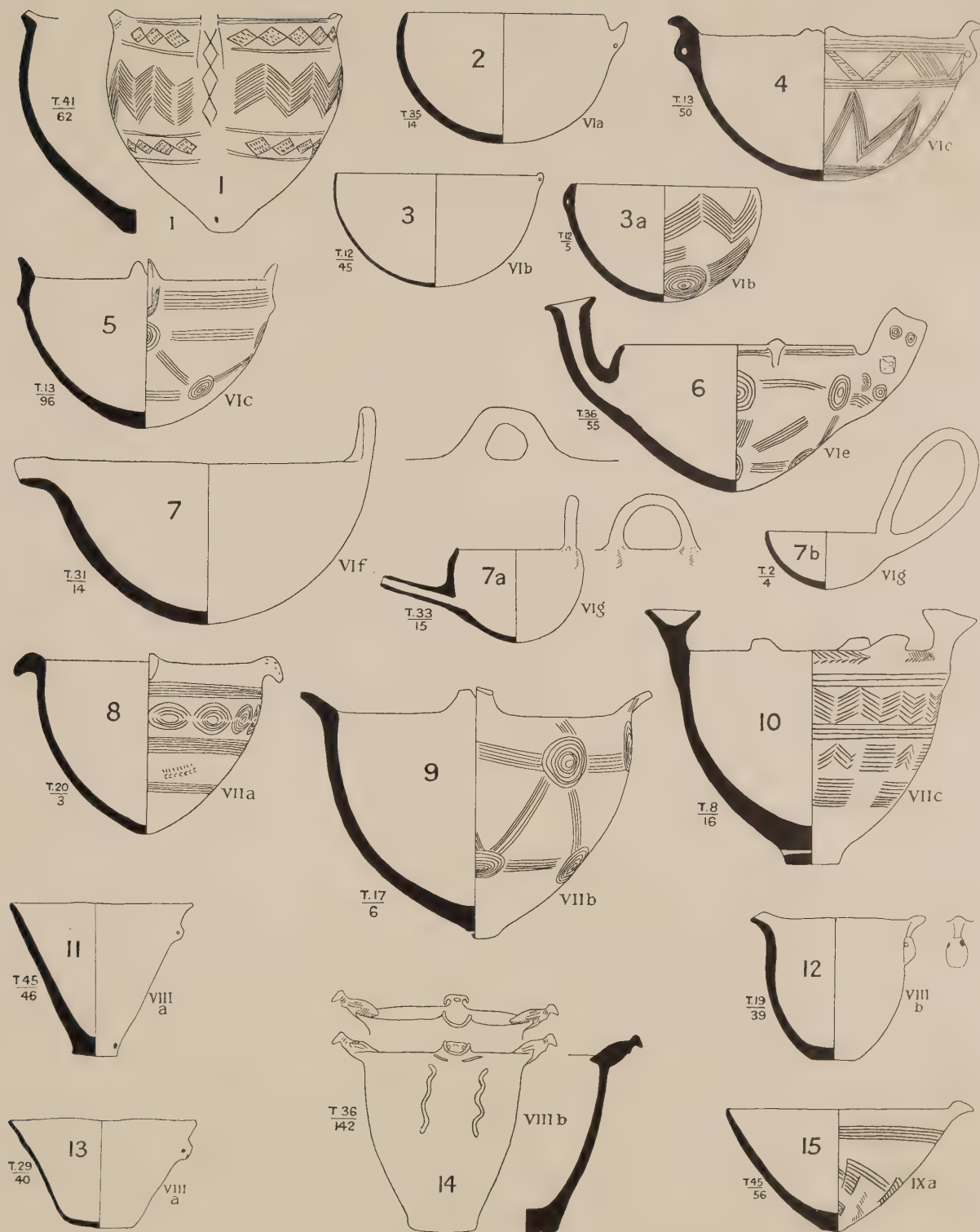
c. Limestone slab from Curium. ($\frac{1}{10}$) ✓



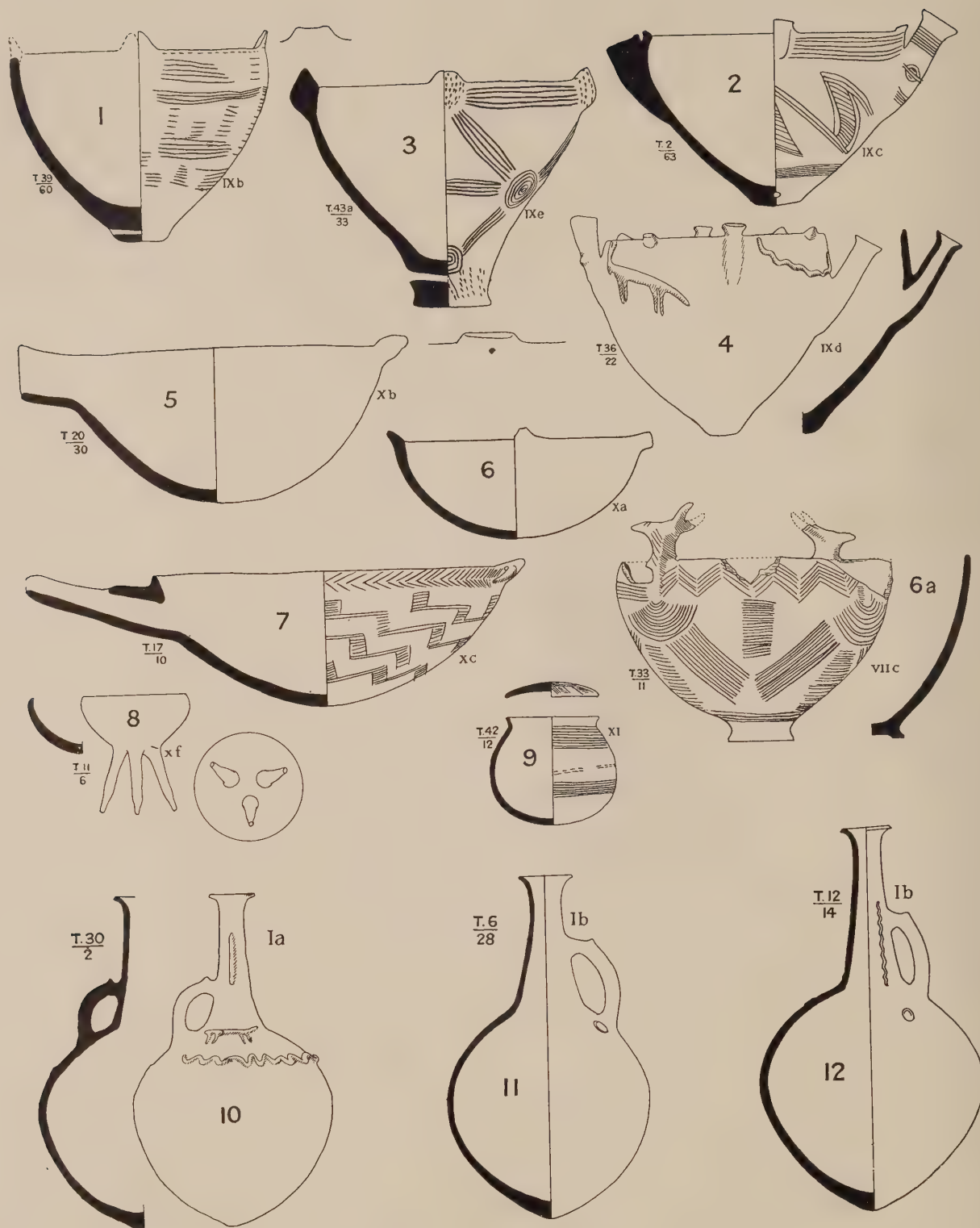
Red Polished large bowls. ($\frac{1}{8}$)



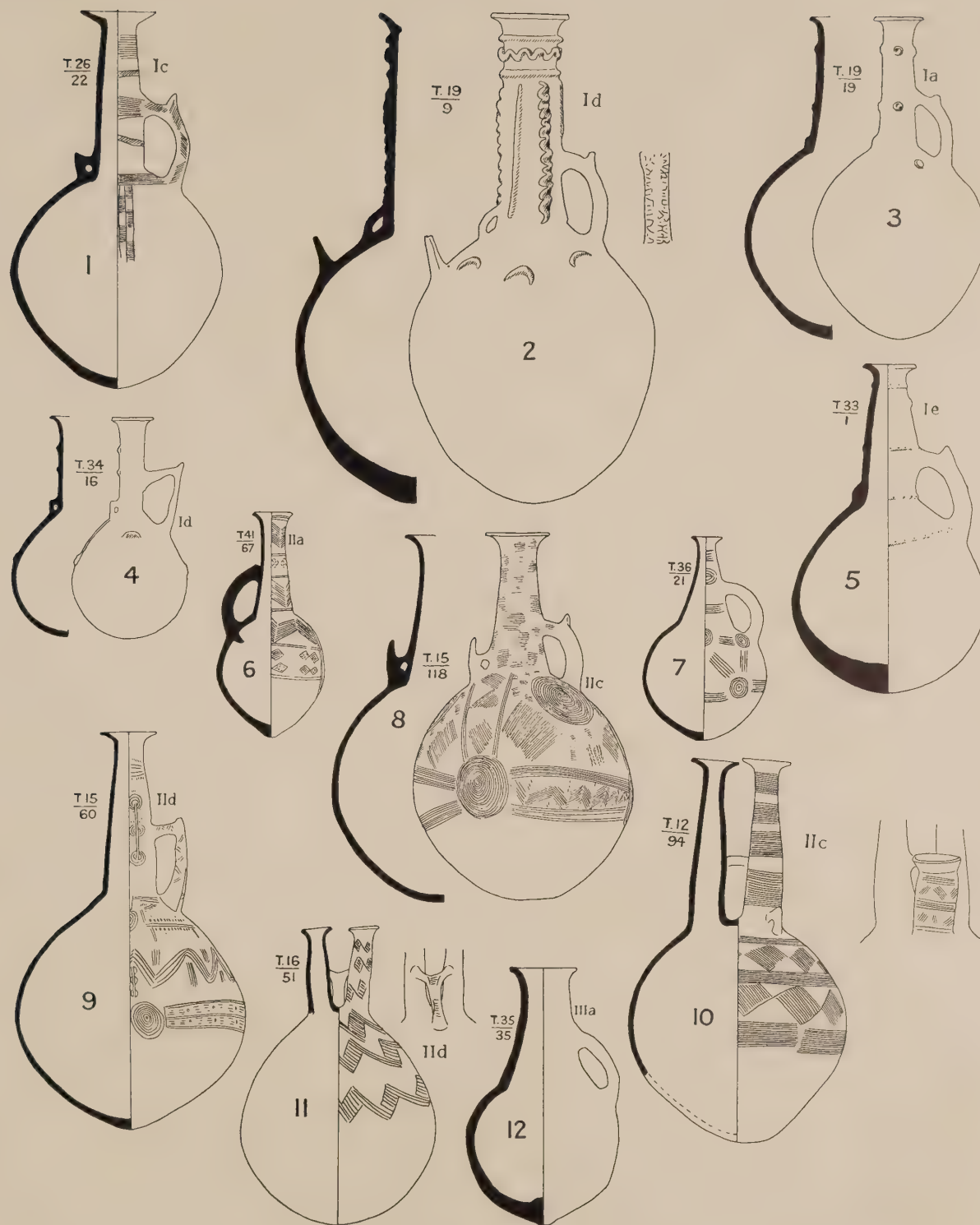
Red Polished large bowls. ($\frac{1}{8}$)



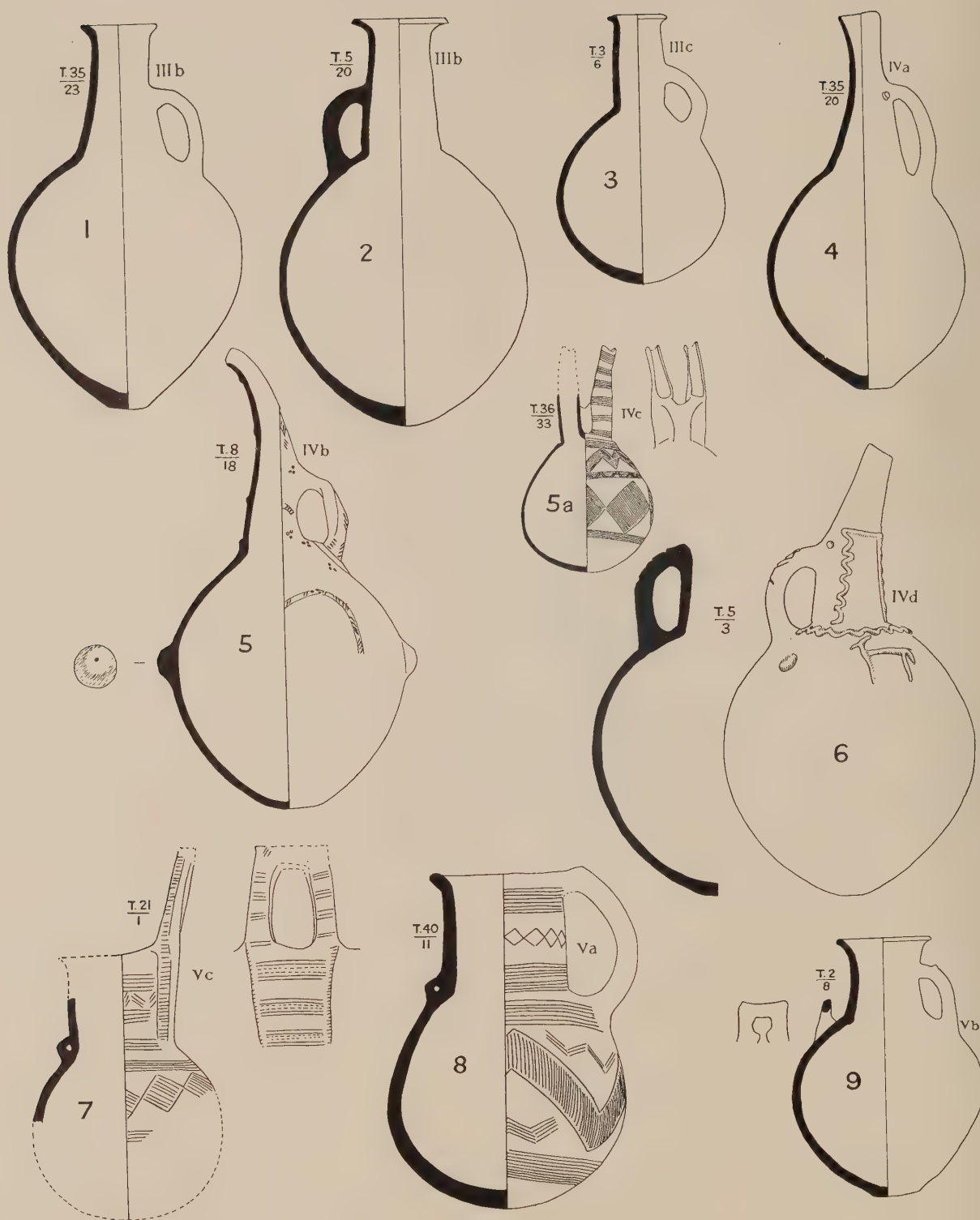
Red Slip bowl, 1, and Red Polished small bowls. ($\frac{1}{4}$)



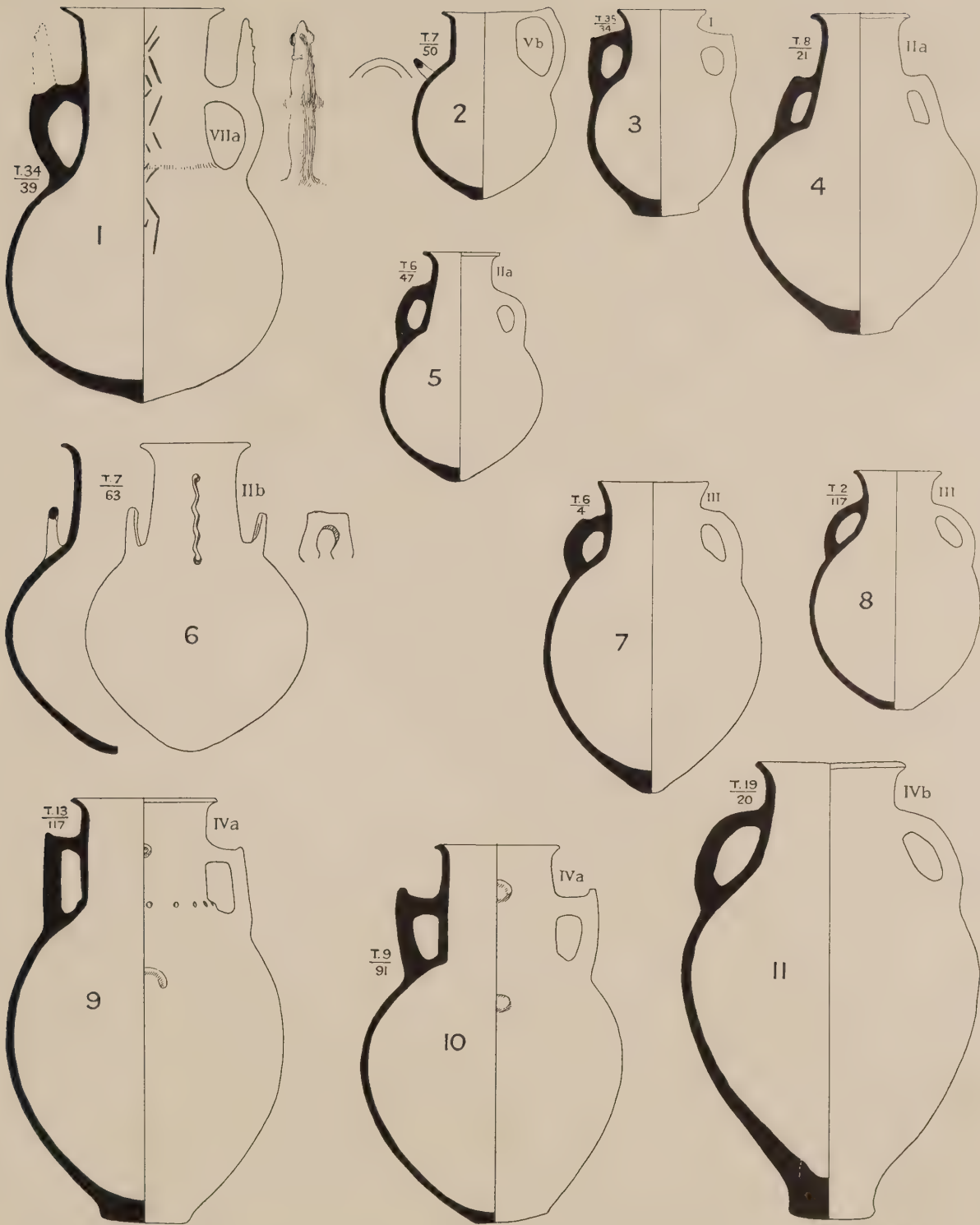
Red Polished small bowls, 1-9 ($\frac{1}{4}$), and jugs, 10-12. ($\frac{1}{8}$)



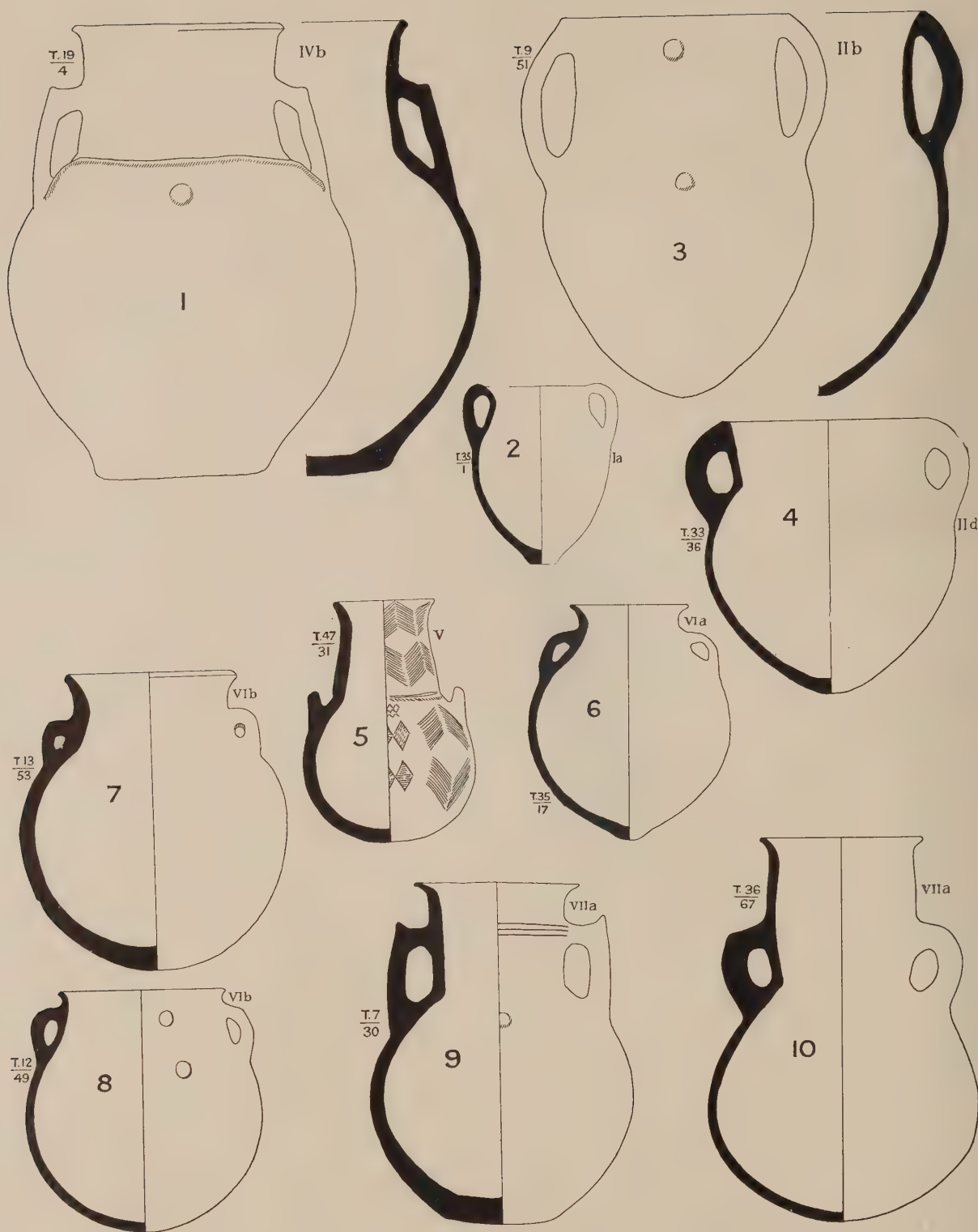
Red Polished jugs. ($\frac{1}{8}$)



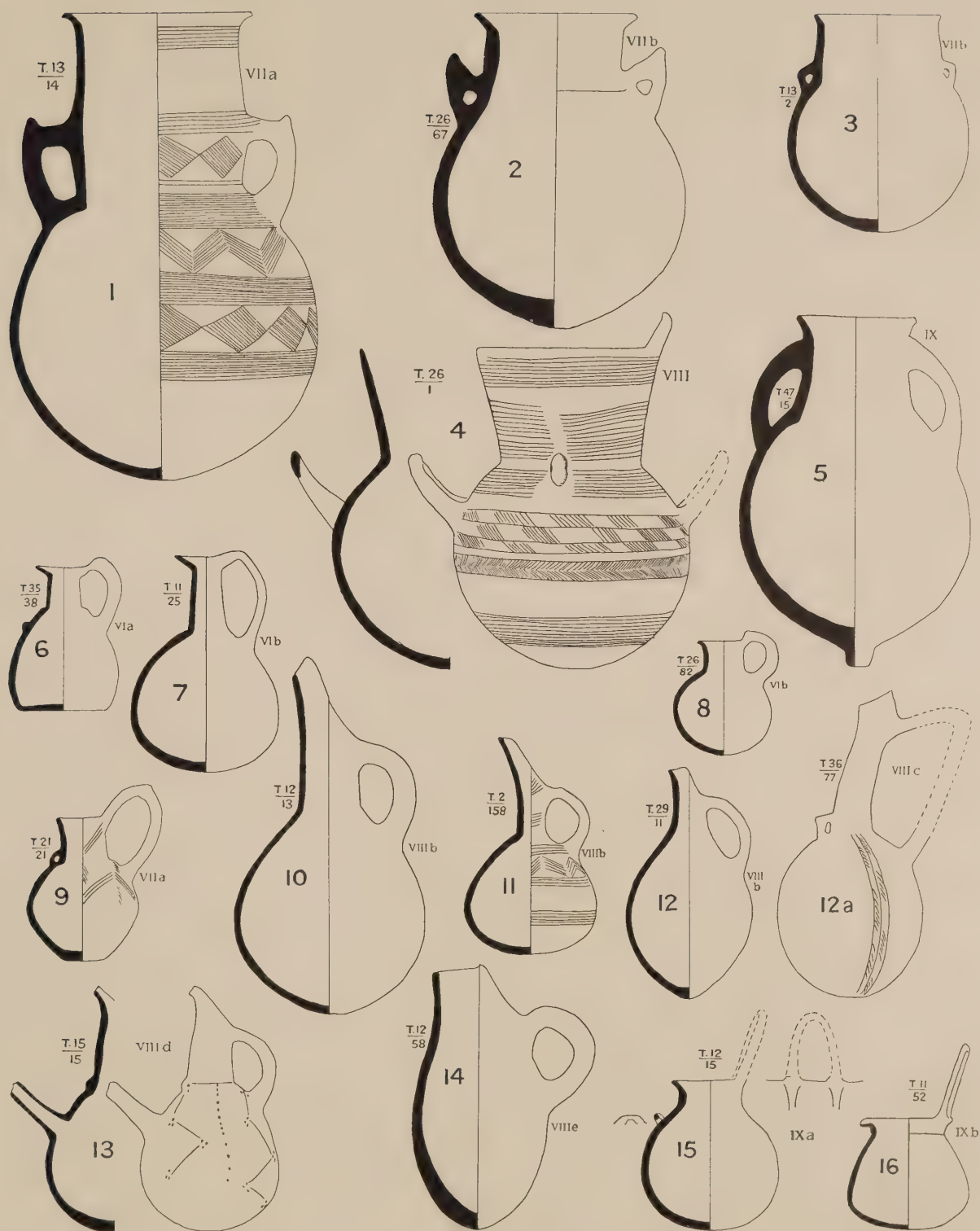
Red Polished jugs. ($\frac{1}{8}$), 7 and 8 ($\frac{1}{4}$)



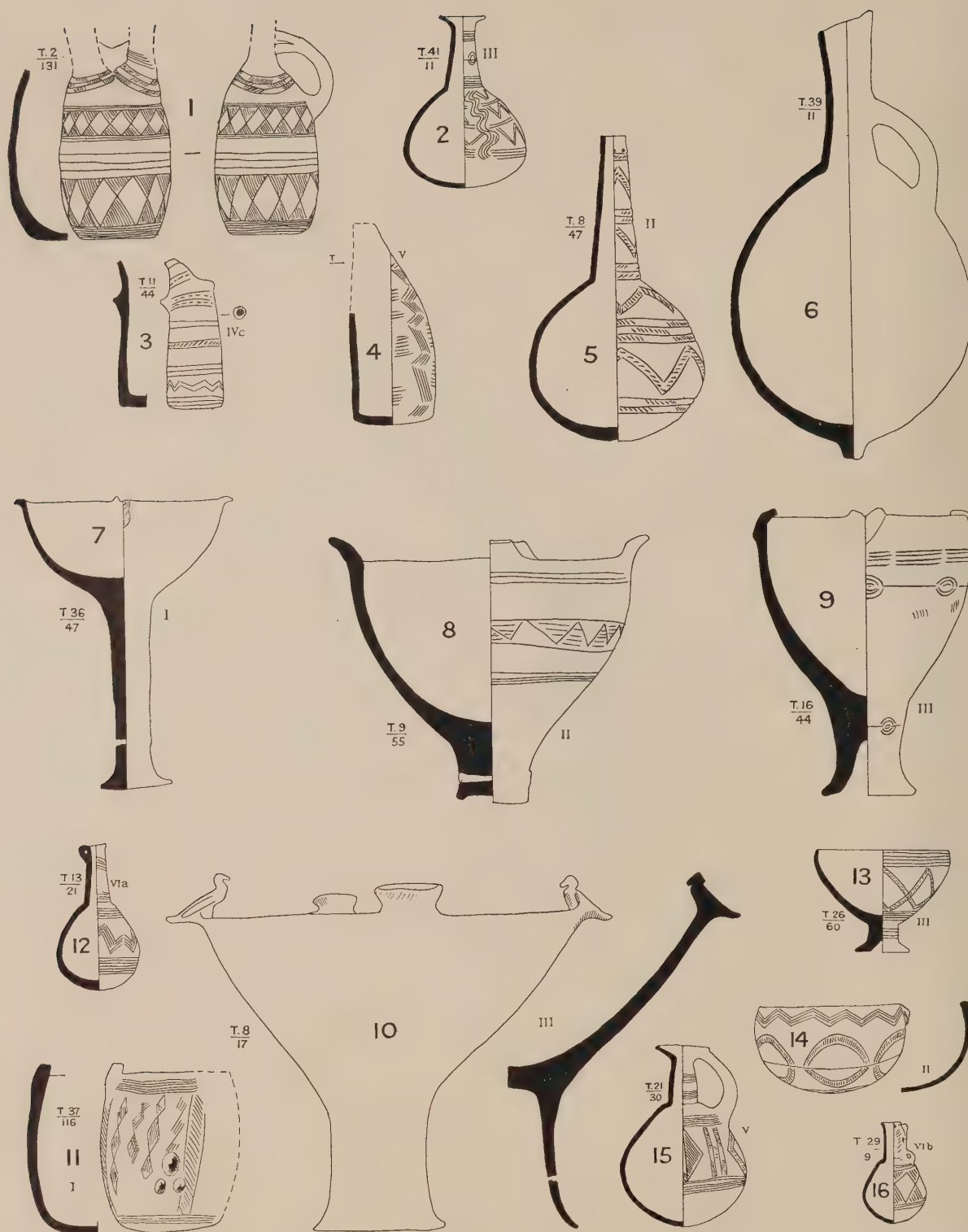
Red Polished jug, 2, and amphorae. ($\frac{1}{8}$)



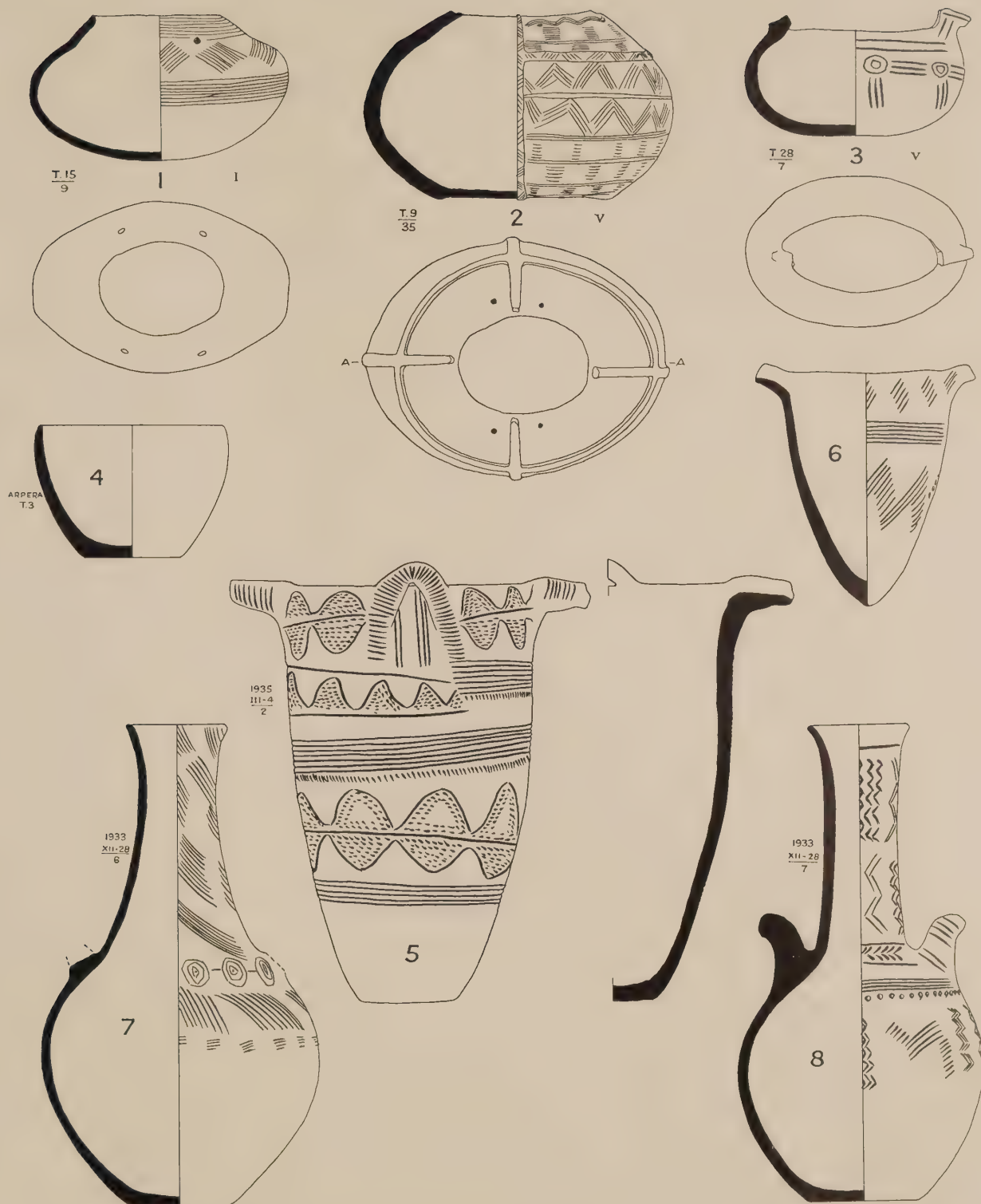
Red Polished amphorae, 1, 5-10, and cooking pots, 2-4. (1-4, $\frac{1}{8}$; 5-10, $\frac{1}{4}$)



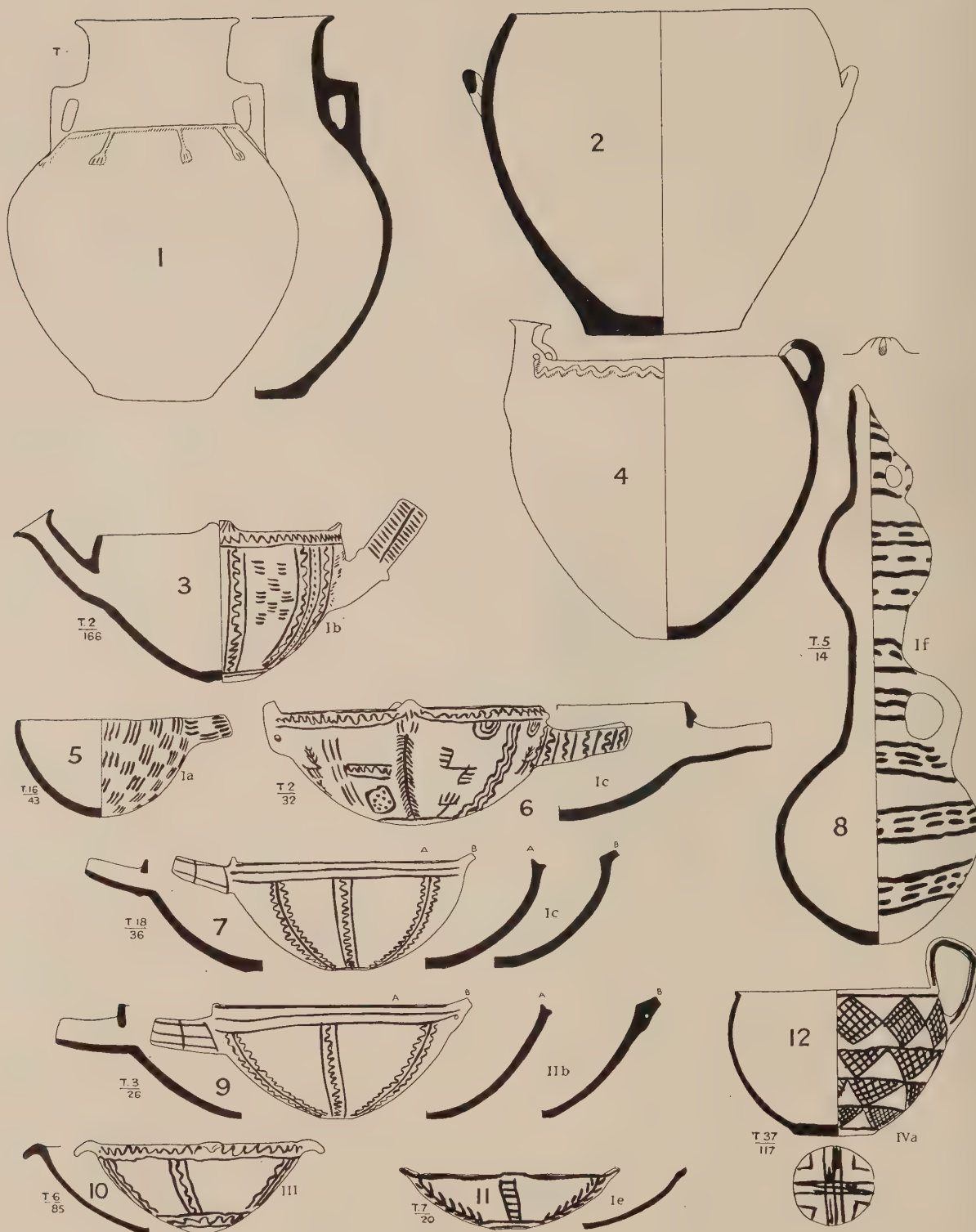
Red Polished amphorae, 1-5, and juglets, 6-16. ($\frac{1}{4}$)
No. 7 is incised



Red Polished juglets, 1; bottles, 2-4; goblets, 7-10; Plain White bottle, 5; Black Polished ware, 11-16; Black Slip jug, 6. ($\frac{1}{4}$)



Red Polished pyxides, 1-3; bowl from Arpera, 4: from Kouris site, 5, 7-8; C.M. no. A 1310: 6. ($\frac{1}{2}$)



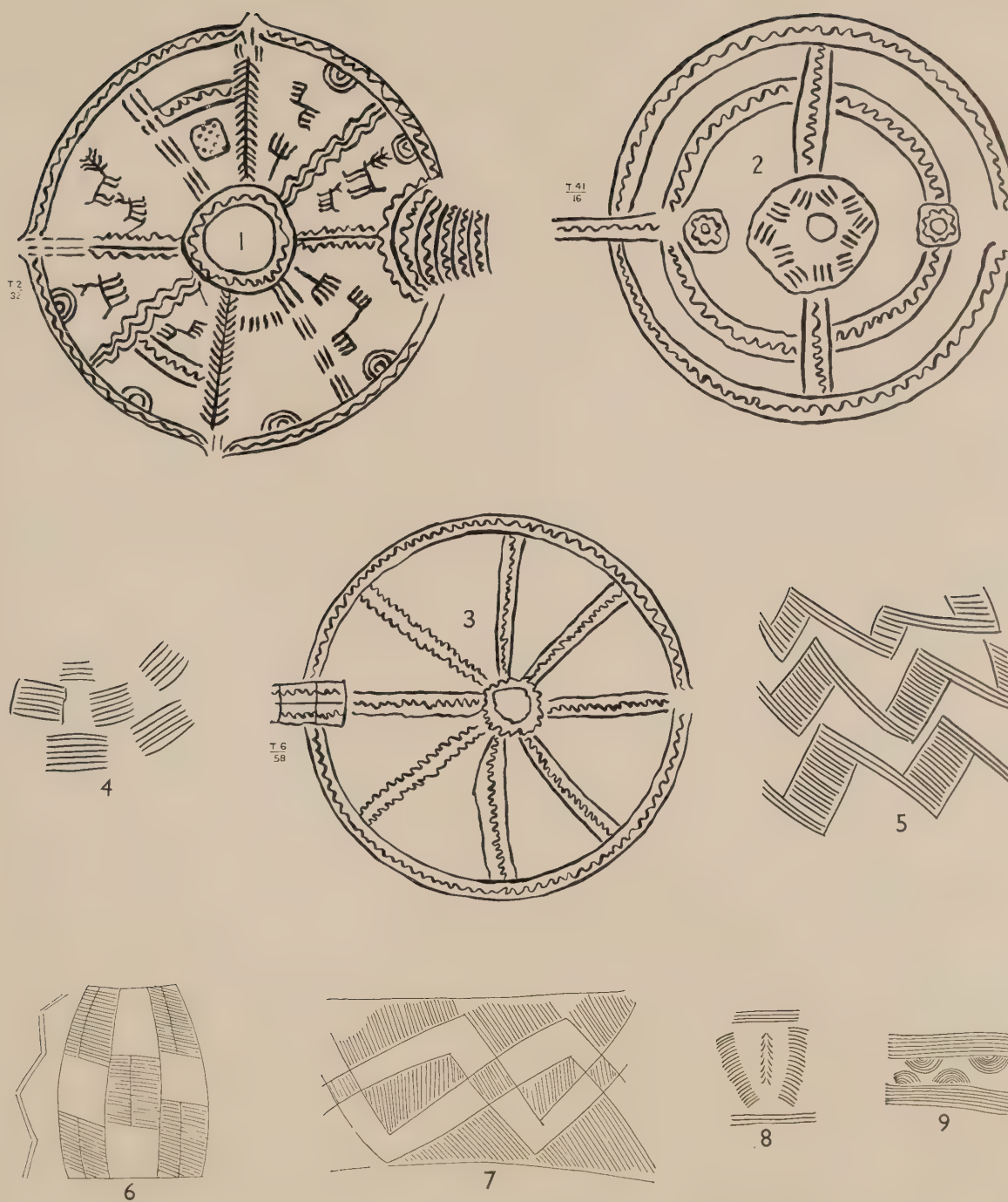
Red Polished vases from Arpera, 1-2, 4 ($\frac{1}{8}$); White Painted ware. ($\frac{1}{4}$)



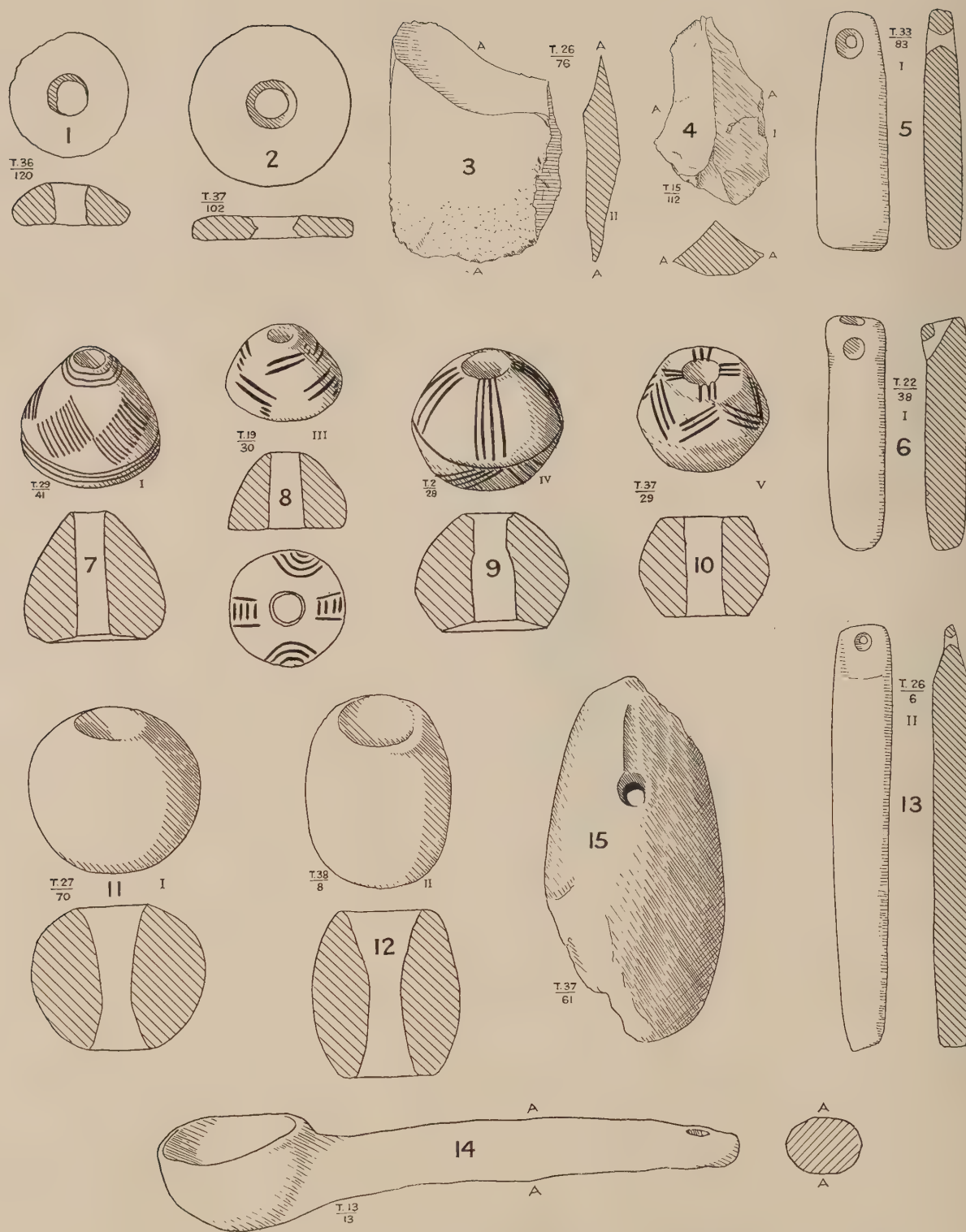
White Painted ware, 1-4 ($\frac{1}{4}$), miscellaneous Red Polished objects, 5-8. ($\frac{1}{2}$)



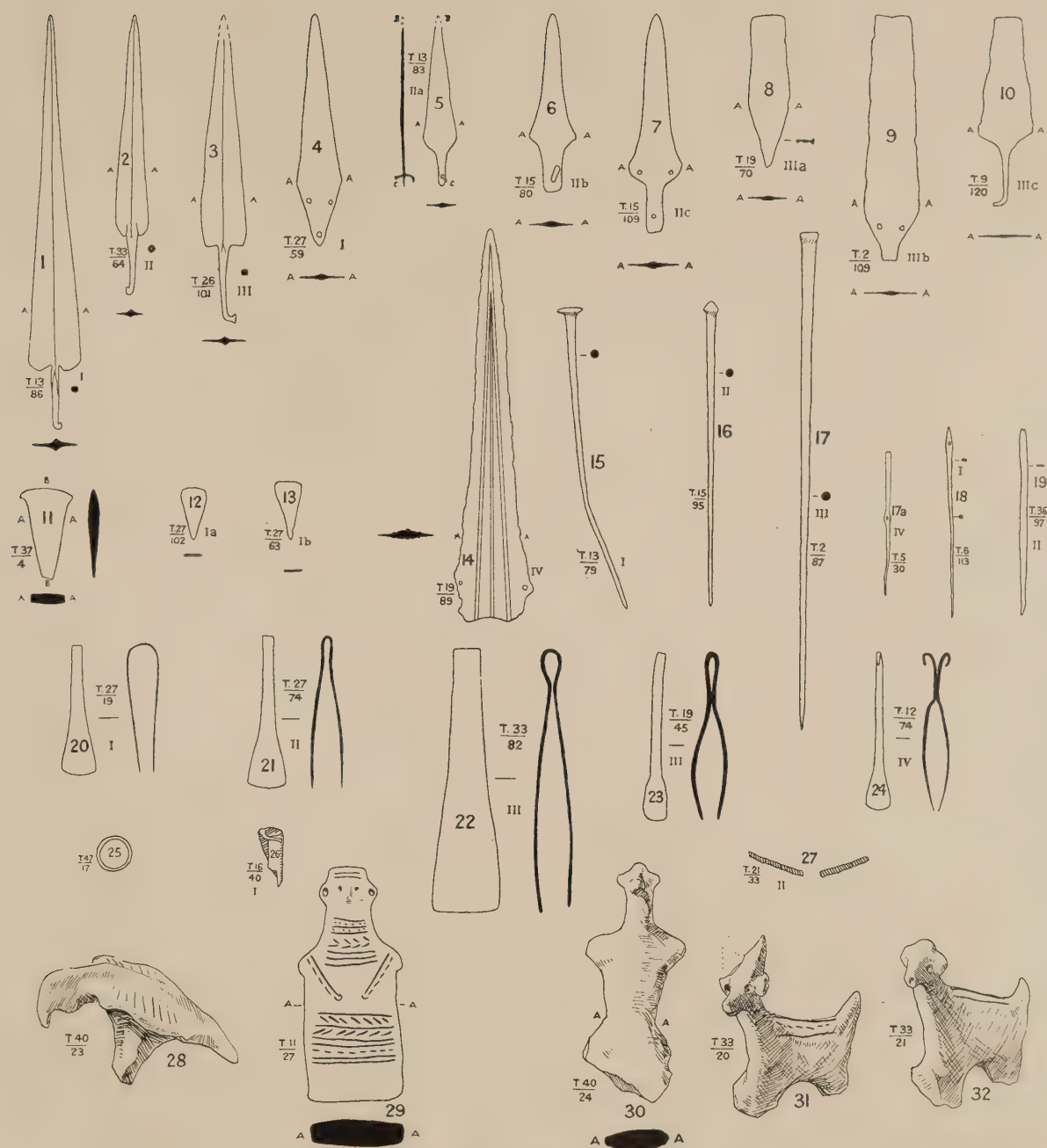
Incised patterns on Red Polished vases, 1-19, 21; painted pattern on White Painted bowl. T. 26: 75, 20 ($\frac{1}{2}$)



Development of pattern on White Painted bowls, 1-3; incised patterns on Red Polished vases, 4-9. ($\frac{1}{2}$)



Miscellaneous Objects: 1 = bone; 2, 5, 6, 11, 12, 13 = stone; 3, 4 = flint; 7-10, 14, 15 = clay. (1/2)



Miscellaneous Objects: Bronzes, 1-27; clay, 28-32. (1-3, $\frac{1}{8}$; 4-32, $\frac{1}{4}$)

tradition of very developed ornamentation, they gave it a new and entirely individual splendour which surpasses by far the Anatolian models.¹

We have mentioned above the copper trade as partly responsible for the development of the cultural relations between Cyprus and Anatolia. This does not imply copper mining in Cyprus at such an early time, as there is no evidence as yet proving that.² This, however, does not exclude the possibility of simple trade. In fact Cypriots had knowledge of copper earlier than it has hitherto been known, i.e. before the Copper Age, and this is proved by the discovery of a copper tool in the settlement of Erimi.³

Wherever the earliest centre of copper mining was, it appears that Cyprus obtained knowledge of the existence of this metal quite early, and it is only natural to presume that the discovery of the metal attracted Cypriot traders and encouraged international intercourse. In fact contacts, possibly through trade, seem to have existed even before the appearance of copper.⁴ This is proved first by the discovery of obsidian in the settlement of Khirokitia. We know that obsidian is not found in geological layers in Cyprus; it must, therefore, have been introduced through trade from the neighbouring mainland, not improbably from Asia Minor, where Professor Garstang discovered obsidian beds.⁵ Secondly, in the Erimi culture, which succeeded that of Khirokitia, some vague contacts are suggested, through technical resemblances of the red on white pottery to analogous wares found in Syria and northern Mesopotamia.⁶

One more fact results from the discovery of the copper tool at Erimi, namely that the Cypriots knew copper before the alleged separation of the Cypriot Early Bronze Age culture from that of Asia Minor (Gjerstad) or before any relations of cultural character with Egypt are apparent. It must be

¹ Here we may mention the extraordinary likeness between the horned animal in relief on a fragment of Red Polished vase from Alaca Höyük (R. Ö. Arik, *Fouilles d'Alaca Höyük*, pl. CLXIII, 1036) and some of the animals represented in relief on the vases found in the Vounous necropolis. Similar likeness may be observed between the stags in relief on the Vounous vases and the bronze statuette of the stag from Alaca (pls. CCII-CCV). The impressed circles on the body of the stag on the Vounous examples (pl. XXII, b) reminds one of the circles inlaid with silver on the Alaca statuette. It must be mentioned, however, that both relief and incised ornamentation occur in neolithic times in Cyprus on stone vases found at Khirokitia.

² For a résumé of the problem of copper mining in Cyprus see Casson, *Ancient Cyprus*, p. 122 ff. This author discusses O. Davies's theory (*B. S. A.*, xxx, 74 ff.) that the copper mines of Cyprus were hardly worked in prehistoric times and that Mycenaean prospectors opened them up. Casson is of the opinion that Cyprus was a field for copper mining before the Mycenaean colonization of Cyprus. Schaeffer (*Missions*, pp. 94 ff.) thinks also that the working of mines in Cyprus started in prehistoric times.

³ *Excavations at Erimi*, p. 68.

⁴ About the naval activity in the Eastern Mediterranean see R. Dussaud, *Les Découvertes de Ras-Shamra (Ugarit) et l'Ancien Testament*, p. 63; and Myres, *Who were the Greeks?*, pp. 217, 277.

⁵ *A. A. A.*, xxiv, 1937, p. 52.

⁶ *Excavations at Erimi*, p. 41.

pointed out that Erimi culture is entirely different from that of Predynastic Egypt.

If the discovery of a copper tool in the Erimi settlement is corroborated in future by more evidence proving the early mining of copper in Cyprus, the tremendous development of Early Bronze Age culture could easily be explained as a result of Cyprus being the centre of intense copper trade. But even if the early mining is not proved, there is no reason for any one to be surprised at the wealth of Early Bronze Age civilization. This civilization is no richer, *mutatis mutandis*, than the Neolithic one discovered at Khirokitia and Erimi. In the first site tremendous architectural and artistic activity has been discovered, and stone vases of very elegant shapes, decorated with elaborate relief or incised ornament, have been brought to light. Erimi revealed, besides intense architectural activity, fine painted and red pottery, the first of which reached a wonderful degree of development. Besides the two sites mentioned, great numbers of other sites have been discovered,¹ showing that the whole of the island was well inhabited. The vigour of the Bronze Age is, therefore, nothing more than a new development of a previous culture full of vigour.

In conclusion, we may say that the Early Bronze Age civilization of Cyprus is, to a large extent, the outcome of the Neolithic and Chalcolithic civilizations, with a fair proportion of new elements giving it the aspect of a new culture. The new elements appear to have a general resemblance to those of Asia Minor, and to have been introduced through increased trade and contacts following the appearance of copper. The cultural elements borrowed from outside were incorporated in the old traditional forms, and the result is that a new culture developed, which in course of time, i.e. in the advanced stages of the Early Bronze Age, shows profound divergences from the Neolithic culture as it appears in its last (chalcolithic) stages.

Before closing this paper we may also examine the problem of the origin of the White Painted ware. Gjerstad² considered that the beginnings of this ware (White Painted I) showed signs of its belonging to a transitional ware between the Red Polished and the White Painted ware. He also considered that some of the decorative painted patterns were inspired by the Red Polished incised ware, while others (e.g. the row of crosses) were not indigenous. Later, Professor Frankfort³ discussed the problem, and concluded that 'the earliest White Painted ware which appears all of a sudden in Cyprus, shows in its very special technique, in its designs and, as far as the amphoriskos⁴ is concerned, in its shape, its descent from the old Syrian stock'.

¹ *Excavations at Erimi*, pp. 72 ff.

³ *Ibid.*, ii, 80 ff.

⁴ This is pear-shaped and has a narrow neck and two lugs on the shoulder, and is well known in

² *Studies*, pp. 150 ff.

Gjerstad,¹ on reconsidering the matter, expressed more or less the same opinion as previously, i.e. that this ware is transitional, and was apparently influenced from Eastern Anatolia and North Syria. He agreed with Frankfort that the amphoriskos may have been imported from those countries.

The discovery in the Vounous tombs of a series of types of White Painted ware which, as already explained, may be placed in an early stage of the Early Bronze Age, gives the opportunity for re-examining the problem of the origin of this ware.

The fundamental argument, which gives considerable strength to the theory of the indigenous origin of the White Painted ware of the Bronze Age, is that this is not the first White Painted ware which appears in Cyprus, as previously thought. The excavations at Erimi and the discovery of the numerous Neolithic sites all over the island have shown that the second part of the fourth millennium in Cyprus is characteristic of a widely spread painted ware.² A deeply rooted tradition of painted pottery existed therefore in Cyprus, and it is quite natural to infer that the Bronze Age painted pottery is a renaissance of the old wares. This is further proved by the fact, mentioned before, that in the very early stage of the Bronze Age bichrome wares occur, and that soon afterwards the early painted wares, described elsewhere in this Report, appeared.³

The discovery of the Neolithic wares removes one more difficulty. The row of crosses, the only ornament which was considered by Gjerstad as not indigenous, occurs on the Erimi painted pottery.⁴ The only arguments therefore to be brought forward in favour of the Syrian-Palestinian influences are the occurrence of the amphoriskos and the similarity of the technique of the creamy white slip and the orange red paint standing out rather thickly upon it.

In the necropolis of Vounous the amphoriskos does not occur in tombs in which early White Painted wares occur. On the other hand, one shape only cannot be of decisive value. As Gjerstad points out, and as the Vounous excavations have proved, nearly all the shapes are from the Cypriot traditional stock of the Red Polished ware. Vounous has even yielded one example of a painted bowl (fig. 17) with the inside face blackened, as occurs on Red Polished vases. This, together with the evidence of the White Painted technique occurring on vases of Red Polished technique⁵ (pl. xxvii, *a*), shows the great affinity of the

Palestine (Macalister, *Gezer*, iii, pl. cxlii, 3-8). For Cypriot examples see Myres, *Handbook*, pp. 30, 271, and Gjerstad, p. 169 (Bottle type 1).

¹ *Classification des céramiques antiques*, classif. 16, p. 15.

² *Excavations at Erimi*, pp. 26 ff.

³ For Myres's most recent theory about the White Painted ware see *Iraq*, vi, 1, p. 82.

⁴ *Excavations at Erimi*, pl. xxii, 54 (only one cross) and pl. xxiii, 41.

⁵ See also Gjerstad, *Studies*, p. 151. Here the juglet no T. 48:58 which is entirely Red Polished type but with painted ornamentation may be mentioned.

THE EXCAVATIONS AT

two wares. Finally, the argument concerning the similarity of the technique of the early White Painted wares of Cyprus and those of Syria-Palestine cannot alone be conclusive.

We are therefore justified in concluding that the White Painted ware is the descendant of the traditional Neolithic painted wares, and that, together with the other evidence, it testifies to the continuity of the culture and the reappearance of the old traditions in new forms.

TABLE OF VOUNOUS CULTURE, ILLUSTRATING THE EARLY BRONZE AGE PERIOD

<i>Period.</i>	<i>Culture.</i>	<i>Pottery.</i>	<i>Approx. date.</i>	<i>Age.</i>
A.	End of Erimi, i.e. of Neolithic and Chalcolithic Age.	Red on White and Red Pottery.	B.C.	
		<i>Shapes:</i> deep bowls with flat base. Handleless jugs with pointed base.	3000	Chalcolithic
B.	Transitional: unexplored.	Not yet known.	3000-2800	Copper Age?
C.	Early Vounous culture revealed in site A.	Red Polished pottery with definite Neolithic characteristics.	2800-2600	
	Vounous culture being the last phase of period C revealed by our excavations.	Red Polished pottery with distinct Neolithic characteristics and beginnings of standard Bronze Age types.	2600-2500	Early Cypriot I
I.	Small tombs.	Beginning of Early White Painted pottery?		
II.	Vounous culture of developed character again revealed by our excavations. Large, well preserved tombs in best part of necropolis; development of funeral rites.	Red Polished pottery: large bowls with rich relief ornament. Large elegant jugs with animals in relief and other incised patterns. White Painted pottery of early types more frequent.	2500-2300	Early Cypriot II
III.	Vounous culture again revealed by our excavations. Large tombs but many fallen in; continuation of funeral rites.	Red Polished pottery: abandonment of large bowls and elegant jugs. Development of elaborate composite forms. Great development of modelling; clay models of scenes from actual life of religious and other subjects. White Painted pottery of standard Middle Bronze Age already occurs. Connexions with E. M. III-M. M. I Crete. Appearance of script.	2300-2100	Early Cypriot III

NOTE.—I have used A, B, C for the first three periods to distinguish them from periods I-III, for the reason that they represent cultural stages earlier than the Bronze Age (A) or not yet explored (B) or not finally published (C).

APPENDIX I

Supplementary notes on the Model of the sacred enclosure. Pls. VII-VIII and pp. 118 ff.

The 1939 excavations at Khirokitia have revealed an important circular house which throws considerable light on the interpretation of the Vounous model. This house measuring 5 m. across lies in the upper part of the settlement. There were several superimposed floors in it, the earliest of which revealed a kind of throne built with special stones and other seats near it. It moreover contained a skeleton of an adult person round which skeletons of infants, apparently sacrificed, were found. The custom of sacrificing infants to adult people continued on the upper floors in which several infants sacrificed right on the adult bodies were discovered. Moreover, in the topmost floor, an independent head to the base of the neck of an idol was found. On the back of this head, which probably represents a male person, appear several snakes in relief, the heads of which, had they been preserved, would be placed on the top of the idol's head.

All round this house special enclosure walls, some of which aimed at hiding the entrance, were discovered. Many bones and horns of animals were collected all round among ashes and carbonized layers.

We therefore have five important elements resulting from this discovery : (i) The circular house in which special rites are performed. (ii) The throne and the other seats. (iii) The sacrifice of infants. (iv) The head of the idol with the snakes on the back. (v) The special enclosure walls and the sacrifice of animals.

If these are brought into comparison with the main features of the model we see that there is no difficulty in recognizing in the latter a kind of enclosure much the same as that found at Khirokitia. The circular shape of the enclosure, the throne, the human creatures holding snakes, the figure holding the infant, the sacrificial animals, and the figure trying to climb over the wall which reminds us of the enclosure walls hiding the entrance of the Khirokitia house are all features met with in the Khirokitia house. The most important of all is the evidence concerning the infant sacrifice which enables us to understand the meaning of the figure bearing an infant in the arms in the model.¹ Not less important is the head with snakes which shows the effort to anthropomorphize the Chthonian deity whose attribute is the snake. Thus the cult and the rites evidenced by the Vounous model are the remnants of an old tradition dating back to the fourth millennium. This moreover gives remarkable confirmation to my theory of the continuity of the culture from Neolithic times to the Bronze Age, which has already been discussed.²

¹ Infant sacrifices were also indicated in the High Place at Gezer : Macalister, *The Excavation of Gezer*, II, pp. 381 ff.

² For a preliminary report on this discovery see *Illustrated London News*, 27 Jan. 1940, pp. 128-9. A detailed discussion will appear in the final Report on the Khirokitia excavations.

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APPENDIX II

Analyses of Metal

The following selection of metal objects has been kindly analysed by Mr. H. A. Atkinson, Government Analyst, Nicosia. Dagger No. 19:89 has been analysed by the Cyprus Mines Corporation, Skouriotissa, Cyprus.

<i>Object.</i>	<i>Period.</i>	<i>Copper.</i>	<i>Tin.</i>	<i>Lead.</i>	<i>Zinc.</i>	<i>Arsenic.</i>	<i>Iron.</i>	<i>Sulphur.</i>	<i>Silica.</i>
15:73 Dagger	II a	99.9	Nil	Nil	Nil	Nil	Trace	Trace	Nil
15:80 Knife		99	Nil	0.1	Nil	0.8	Trace	Trace	Nil
15:95 Pin		99.6	Nil	Nil	Nil	Nil	Trace	Trace	Nil
19:70 Knife	III a	98.9	Nil	Trace	Nil	Trace	Trace	Trace	Nil
19:45 Tweezer		99.5	Nil	Nil	Nil	Nil	Trace	Trace	Nil
26:102 Knife		98.3	Nil	0.1	Nil	1.5	Trace	Trace	Nil
33:66 Dagger	III b	98.7	Nil	Trace	Nil	1.2	Trace	Trace	Nil
33:70 Knife		97.6	Nil	Nil	Nil	Trace	1.8	Trace	Nil
33:81 Pin		87.8	11.7	0.3	Nil	Nil	Trace	Trace	Nil
37:4 Axe Head		98.9	Nil	0.2	Nil	0.7	Trace	Trace	Nil
19:89 Dagger of Minoan Type		85	10	Nil	Traces	Nil	2	Nil	1

Mr. Atkinson reports that with the exception of No. 33:81 which is of bronze all the others are essentially of copper with varying small amounts of lead, arsenic, iron, and sulphur, probably present as impurities. No. 19:70 also contained a small amount of extraneous silicious matter. The Cyprus Mines Corporation, who kindly analysed more weapons and tools, report that these are essentially of copper with the exception of the dagger No. 19:89 which is of bronze. This is in contrast to the fragment of dagger (No. 1499) from Tholos K (Xanthoudides, *op. cit.*, p. 82) to which this dagger has been compared and which contains no tin. In fact all the other daggers found in the same Tholos contain no tin. Bronze, however, is known in Crete from the M.M. I period (Pendlebury, *op. cit.*, p. 118).

NOTE 1.—It has not been possible to include in this report the study of those skulls which could be measured. This will be done in a complete study of all the recently discovered anthropological material belonging to prehistoric times.

NOTE 2.—It will be observed that paste beads considered of Egyptian inspiration or manufacture are not only found in tombs attributed to period III but also in tombs attributed to period II, namely in tomb 2 (4 white paste beads) and in tomb 15 (2 necklaces of blue beads). Gjerstad (*Studies*, p. 268) considers that these paste beads appear in Early Cypriot III and that according to Dr. Fisher they occur as early as in the XIth Egyptian dynasty but not before (*ibid.*, p. 334).

The fact that tombs 2 and 15 have been attributed to period II, which they mainly represent, does not exclude the possibility of their being used in period III, especially as they are both large tombs and contain exceptional numbers of finds, some of which occur also in period III. The paste beads would then be dated in the last stages of the tombs.

A similar observation applies to tomb 27 (period II and III) and tomb 39 (period II) which each contained a Black slip vase. As both are large tombs and contained several burials they must have been used for a long time, possibly into the advanced stages of period III, during which Black slip ware appeared (see Gjerstad, *Studies*, p. 267).

In conclusion it should be borne in mind that the three periods distinguished are not separated sharply from one another, but that on the contrary the advanced stages of a given period merge into the beginnings of the next one, this being the result of a slow, continuous, and uninterrupted evolution.

II.—*Excavations at Viroconium, 1936–7*

By MISS K. M. KENYON, *M.A., F.S.A.*

THE city of Viroconium, with an area of about 170 acres, was the fourth largest city in Britain, and the largest one which owed its importance purely to the fact that it was a cantonal centre. It lies to-day almost entirely beneath farmlands, only a small part being covered by the modern village of Wroxeter. In spite of these facts, so encouraging and favourable to excavation, many of the problems of its history have not yet been solved. Only one series of excavations on the site have so far been scientifically executed and published, those carried out by Mr. J. P. Bushe-Fox, F.S.A.¹ for the Society of Antiquaries in 1912–14, but these unfortunately did not reach any of the principal buildings of the city. The earlier excavations, in the middle of the nineteenth century, which located the well-known Bath Buildings, like all excavations of that date, did not produce any reliable evidence of the history of the site. The excavations carried out by Professor Donald Atkinson in 1924–6, which identified the Forum, have not yet been published.

It was therefore felt that further excavation might profitably be devoted to the site, and work was carried out there for five weeks in 1936, and seven in 1937. Sir Charles Marston, F.S.A., President of the Shropshire Archaeological Society, provided all the funds for the first season's work, including the removal of one of the old dumps on the Baths site, and also provided £100 for the work in 1937. It was thus only his generous support which made the work possible, and the thanks of all who are interested in the history of this important site are due to him. In the second season support was also given by the Society of Antiquaries and All Souls College, Oxford, and further funds were raised by a Committee formed for that purpose. During the work, much assistance was given by Mr. J. A. Morris of the Shropshire Archaeological Society, and a number of students were most useful in the detailed excavation work. To all of them I should like to tender my sincere thanks.

HISTORICAL SETTING

Viroconium lies at the point at which the original line of Watling Street crosses the Severn and penetrates into the hill country of South Shropshire and Wales. Both the literary sources and finds on the site (notably tombstones of

¹ *Reports of the Research Committee of the Society of Antiquaries of London*, nos. I, II, and IV. *Excavations on the site of the Roman Town of Wroxeter, Shropshire, 1912, 1913, 1914*. Referred to as Wroxeter I, II, III.

legionaries of early date¹) indicate that it was founded as a legionary camp about the year A.D. 48, during the time when Ostorius Scapula was attacking the Welsh tribes. Such continued to be its status until, Wales having been subdued by Frontinus, Agricola was able to move the legions which had been stationed at Viroconium, the Fourteenth and the Twentieth, to Deva (Chester). It was presumably only after this date that the civil town, tribal capital of the Cornovii, grew up, and it is at least a reasonable conjecture that it was at this juncture that the native population were made to abandon their fortified town on the Wrekin and descend to the plain. An excellent analogy to this is provided by the history of Dorchester, where, though Maiden Castle was conquered early in the Roman period, it was not until the Flavian period that the hill town was abandoned in favour of the site of the modern town of Dorchester. Excavation of the Wrekin can alone prove this point.

The fortifications of Viroconium, as shown by surface indications, clearly owe nothing to the plan of the military fortress. The most important problem, therefore, to be solved by excavation, was to establish the date of the defences, and to trace, if possible, the lines of any earlier ones. Evidence as to the date and area of the earliest occupation of the site, which might of course not correspond with those of the defences, was also desirable, and to be obtained by careful examination of the earliest deposits. In addition to this, it was desirable to throw light on the history of the city by the examination of one of the principal buildings. The excavations were therefore concentrated on these two points, cuttings through the defences, and the re-examination of the Baths Building; and they will be dealt with in that order.

DEFENCES

(a) *First Century.* In the course of the two seasons, three trenches were cut through the defences on the east side of the city, at the places indicated on the plan (pl. LXVIII). These showed that there had been an original turf-revetted bank and double ditch, which was later succeeded by a wall with a much deeper ditch. In the southernmost trench (1) the base of the early bank was found intact to a width of 8 ft., with a very clearly indicated turf facing about 4 ft. wide, cut into by the later wall (see Section A, pl. LXX). The bank rested on the original turf, from which came a sherd of first-century Samian form 27 and two other first-century sherds, together with one sherd of pre-Roman character. The bank itself contained four sherds of first-century pottery, including two mortarium rims, probably dating about A.D. 90-120, together with a coin of Claudius I (illegible). From the tail of the bank backwards ran a secondary turf line, indicating that there was an appreciable interval before the addition of the second bank. In a streak of

¹ *V. C. H. Shropshire*, i, 242.

sandy soil which separated the two turf lines were three fragments of first-century Samian, forms 37, 27, and 18, a rim of a jug, probably Flavian, and a late first- to early second-century mortarium rim, while in the turf itself was a fragment of form 35 of the late first-century, and the rim of an early second-century jar with trellis pattern.

In this trench, no trace was found of the ditch belonging to this bank, as the later ditch, which cut through the material crumbled from the face of the early bank, had completely destroyed it. In the next cut to the north, however, the lines of the two periods had diverged slightly, and an early ditch was found underlying the later wall. This had been filled with material from its own rampart, for none of the early bank was here intact, all the streaks of turf and so on clearly having been pushed forward into the ditch (section B, pl. LXX). In the third cut, a second early ditch was found, separated from the inner one by a ridge 12 ft. wide.

The date and form of the earliest defences was thus clearly indicated by these cuts. From the pottery evidence of the first trench, where alone the bank was undisturbed, the date cannot be earlier than the late Flavian period, or even early in the reign of Trajan. The ramparts would therefore presumably date from the first lay-out of the town after Viroconium ceased to be a military camp. In form, the defences are of a type for the construction of which during the first century increasing evidence is continually being found.¹ Neither the bank nor the double ditches seem to have been of great size, but they together form quite a normal type of Roman enclosure wall.

The next problem obviously concerns the area enclosed by the first-century defences. Valuable indications of this are given by the lines of the modern roads. The modern Holyhead road, as laid out by Telford, follows for much of its course that of Watling Street. About half a mile short of Viroconium, however, it branches away to the north-west, towards Shrewsbury, the city's medieval successor, and the line of the Roman road is continued by a narrow lane. This joins the road from Norton to Wroxeter village, which represents the main street of the rectangular lay-out of the Roman city, some distance inside the visible line of the city wall, at a sharp angle. An analogy is immediately suggested by the behaviour of Watling Street on the south side of Verulamium. There, inside the first-century city, the street conforms to the rectangular plan of the city, but branches away diagonally outside its limits. When the second-century expansion took place, this diagonal line had to be incorporated in the new lay-out. It may, therefore, be supposed that in the case of Viroconium likewise, the point of junction of the diagonal line with the rectangular would be approximately the limit of the early city. This point is exactly where, from the lie of the ground, one

¹ e.g. the first-century defences at Verulamium, though these are on a larger scale.

would expect the original boundary to be. It occurs just on the brow of the steep little defile in which runs the Bell Brook, and the brow along most of the northern side is marked by a pronounced ridge.

In an endeavour to prove the existence of the earlier defences here, a trench was cut in the field immediately east of the point of junction of the two roads. At exactly the right spot, a ditch was found of the same sort of dimensions as the first-century ditches on the east side. The filling of this ditch was definitely late, probably fourth-century, which would of course rule it out, as the first-century ditch would certainly have been largely filled in when the new defences were built. There were, however, indications that this ditch had been re-cut, as the original lip of the ditch was overlapped by some layers of metalling, which were cut by the later ditch. Associated with this original ditch was a low bank with a little first-century material in it, overlain by a good deal of second-century material. A possible explanation of the course of events is that in the fourth century the city shrank back to its early limits, as apparently happened at Verulamium, and that the first-century line was re-fortified. Some support is given to this by surface indications that the ridge, which runs along the brow of the valley, is continued across the line of the second-century ditch, to the ridge on the far side of this. This could only be the case if, after the second-century defences were in existence, the northern part of the city had to be excluded.

Further excavation is necessary to prove that this really was the course of events. Even if, however, this ditch should prove not to be a defensive ditch at all (it is rather large to be anything else), the lay-out of the roads makes it quite certain that the first-century defences did run approximately on that line. No evidence has yet been found as to the line on the western side of the city, but it is very probable that it everywhere kept inside the Bell Brook, which forms a natural boundary.

(b) *Second Century.* The defences which succeeded these first-century ones are visible on the surface the whole way round the city, except on the river side, where they probably run along the crest of the steep slope above the Severn. Of the actual wall, very little has been found to survive in most of the cuts which have been made to examine it. The only exception appears to be at the point where Watling Street enters the city, where the core was apparently standing about 4 ft. high.¹ Elsewhere, only the footings of the wall survive, consisting of rough cobbles set in clay. These varied in width from 6 to 9 ft., and clearly formed the lowest footings of a masonry wall. At the places cut in the recent excavations, the bank behind the wall had been very much flattened by ploughing, but in some places is standing to a considerable height. Along most of the east side there appears to be a low counter-scarp, but that was not tested by excava-

¹ Wright, *Uriconium*, p. 98.

tion. Owing to the lack of time, the ditch was not completely excavated, but at cut I was nearly so. This cut showed that the ditch was of W-section, a feature also observed by Professor Atkinson on the north side.

So far, none of the gates of the city has been certainly identified. Wright thought he had found traces of one at the place mentioned above, but it is certainly not proved. On the east side a position for one was strongly suggested by the causeway on which a modern track crosses the ditch, which is the only interruption to its line. This track is approximately on the line of the Roman street identified on the north side of the Bath Building, and its line is continued across country in the direction of the Wrekin, by a remarkable straight series of field-boundaries, and a sunk track, as far as Rushton. The causeway, however, proved to be quite modern, so that unless there was a bridge, as at Silchester, the line cannot be exactly here. The excavations indicated, however, that the character of the ditch was changing just at this point. In the cut north of the track, the berm was 25 ft. wide, while on the south side, only some 25 ft. away, it was only 12 ft. Moreover, in a cut directly across the causeway, the natural bottom was found to be rising to the north. What was apparently happening was that the W-ditch was being superseded by a single one, the inner branch dying out, and the outer one swinging in, and it was the last alone which was present in the northern cut.

The date of these defences was clearly indicated by a considerable amount of second-century pottery. This included three sherds of Samian form 37, of Hadrian-Antonine date, going down to about A.D. 150 (fig. 3, nos. 14-16). This last date is probably approximately that of the bank.

SUMMARY

The work on the defences described above has indicated that the history of Viroconium was the normal one, a first-century city of modest size and with simple defences, succeeded by a much larger city in the second century, with a more grandiose wall. What has certainly not been found is the Claudian legionary camp. This may lie farther towards the river, though a good deal of this area was examined in the 1912-14 excavations. Excavation on the Baths site, however, revealed that there was all over a sprinkle of early occupation, certainly pre-Flavian, and possibly Claudian.¹ No structures, even wooden, could be traced in connexion with this occupation, which was found in a number of pits, as well as in a layer above the natural soil. But the pottery makes it quite clear that occupation at Viroconium does date back probably to Claudian times, in striking contrast to Chester where no Samian of a pre-Flavian date has been found.² The

¹ See fig. 2, nos. 1-6 for Samian, and brooch, fig. 15, no. 2.

² Dr. T. Davies Pryce.

military camp is therefore somewhere to be found, and the late first-century defences, as suggested above, may well date from the period when it was succeeded by the establishment on the site of the civil city, accompanied by the transfer thither of the population of the Wrekin.

BUILDINGS

A number of roads and a certain amount of the lay-out of the city had been identified in the course of the various earlier excavations. As mentioned above, none of these has been scientifically published yet, with the exception of those of Mr. Bushe-Fox in 1912-14. These, unfortunately, did not uncover any of the more important public buildings, and, with the exception of one small temple, apparently classical in plan, were concerned mainly with private houses and shops. The Forum, dated A.D. 130 by a magnificent inscription, which was excavated in 1924-7, has not yet been published. The well-known remains of the public Baths were excavated in 1859 and the following years by Thomas Wright, but the technique of excavation at that period did not enable much to be deduced as to the history of the building.

It was, therefore, obviously desirable to re-excavate this area and establish its date and story. In much of the Bath Building this was not possible, as all the deposits had been removed down to the natural soil. It was only in the area where large dump heaps had been left that there was any hope of undisturbed stratification. The eastern of the two heaps was therefore removed, and fortunately the floor levels were found intact beneath them. From them sufficient evidence could be produced, supplemented by structural details elsewhere, to work out the sequence and approximate date of the various portions of the building. The Basilica, which had only been trenched by Wright, was also re-excavated.

The group of buildings had been identified by Wright as public Baths, with several suites of bathrooms, and on the west side, as part of the same complex, a latrine, two large shops, and a small market. On the north side he identified a building as a Basilica, joining on to the back wall of the Baths. Further excavation, however, showed that neither identification was completely correct, though the first-named building was converted into Baths.

The buildings as originally completed, consisted of two which were structurally quite independent, though they may have been associated in function, and there is a suggestion of a change in plan which will be discussed below. That to the south consisted of a main block of four large rooms on the eastern side, with a courtyard enclosed on the north by the continuation of the wall of the building, and possibly likewise on the south, but this was not excavated. The western side



a. General View



b. North end of main hall showing arches and supporting buttresses



c. Foundations of north end of main hall, showing thickness



a. West wall of Phase I Southern Building (running across picture), with Phase IV (left) and Phase II (left centre) walls built up against it.



b. Room 15



c. Room 9, showing offset running round wall

Archaeologia, Volume 88, published by the Society of Antiquaries of London, 1940



a. Junction of Phases I and II at north-east corner, showing difference of line and courses

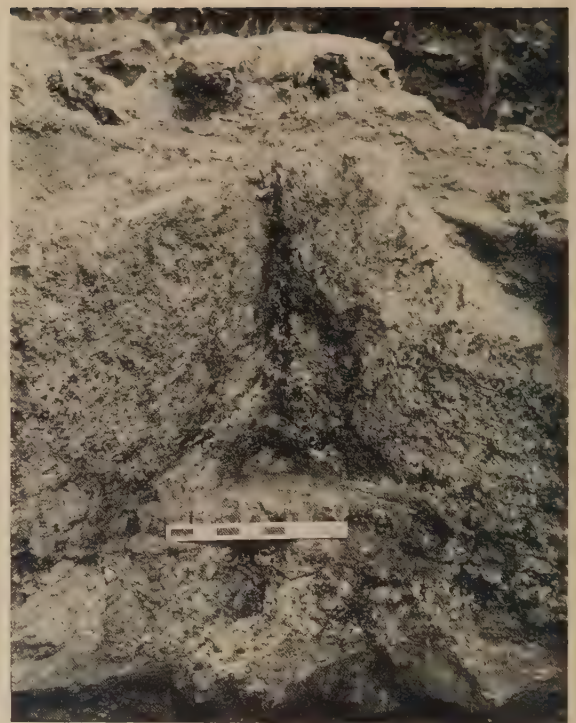


b. Base of junction of Phases I and II at north-east corner, showing false bond

Archaeologia, Volume 88, published by the Society of Antiquaries of London, 1940



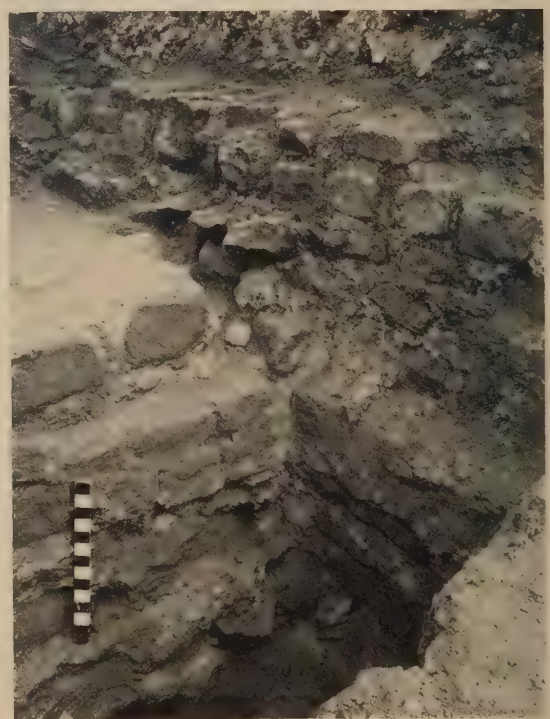
a. Phase II wall built over footings of south-east angle of Phase I main division of Hall



b. Mosaic facing of wall of Room 9



c. Phase II junction of east wall of Hall with Baths



d. Original south wall of east room of Hall cut away, and southern addition of room in Phase III

may have been formed by the block identified by Wright as latrine, shops, and market, but this was not re-excavated, and lay partially underneath dumps and modern sheds, so its period was not established. To the east lay an open space, the surface of which was of hard mortar adjacent to the building, and of gravel farther away.

Most of the walls of the main block are robbed below ground level, and only the substantial foundations survive. The principal exception is the magnificent fragment which coincides almost exactly with the north wall of the main block, which is called by early antiquaries 'The Old Work of Wroxeter'. This is standing some 20 ft., above floor level, and is built in the usual fashion with bonding courses of tiles. The stone is red sandstone probably from Acton Burnell:¹ the facing stones are carefully dressed and coursed, and the coursing runs through the wall. The stones of the core, however, are undressed and are sometimes but not always pitched. Putlog holes are visible, at horizontal intervals of about 3 ft. 9 in., and vertical intervals of about 4 ft. 6 in.

The width of the foundations of the wall (this thickness is not carried along the part which bounds the courtyard) is 6 ft. 10 in. but that of the superstructure is only 3 ft. 6 in. Four buttresses, however, project to the full width of the foundation, thus forming three shallow niches. Corresponding to these niches are three arches in the wall above. The buttresses were not, however, carried up to the spring of the arches, as they apparently stood only to the height of 9 ft. above the floor (shown by the facing on the main wall, see pl. LXI, *δ*), leaving an interval of 7 ft. 6 in. before the spring of the arches is reached. It is evident that columns must have stood on the buttresses to take the arches, and that the whole must have formed an imposing architectural feature. The arches were definitely only intended to cover the niches, and not to be continued as barrel-vaults. This is proved by two points, the first that there are no corresponding buttresses on the south wall of the room, and the second that in a drawing of about 1721² (fig. 1) faced masonry is shown continuing up for 6 ft. above the arches, some trace of which can still be seen. The same drawing proves that the breach in the central niche does not represent an original opening, for the wall is shown continuing across to the height of the first bonding course. These architectural features might suggest that this room, though not the largest, was the most important in the building. There are not, however, sufficient remains to show whether the other rooms had similar features. The southernmost wall, at least, was apparently broad enough to have done so.

The floor of room 1, on the level of the foundation offsets, was of hard concrete, and in the niches are remains of mosaic, which may or may not have extended over the whole room. Beneath the floor of this room, and of room 2,

¹ J. A. Cantrill, *Arch. Camb.* 1931.

² *Drawings*, ii (Society of Antiquaries).

from the irregular plan (very difficult to roof) at the east end, did not exist, and there was merely a passage, with open ends, separating the two buildings. A further suggestion that the structural unit consisted of the two northern divisions together is given by the fact that the south wall of the supposed nave and the north wall of the supposed north aisle were apparently thicker than the one dividing the two areas, but as the latter was robbed very low, and the others varied in thickness where they survived, this is not quite certain. It is, however, quite certain that the north, east, and south walls were built as one unit, with all other walls added up against them.

Outside the northern and western walls was another, which obviously formed a portico running round the building, 13 ft. wide on the north and 18 ft. 6 in. on the west. The eastern end of this was not traced. To the south-west, it may have continued round the southern building, but that could not be excavated. Running along the wall on the north side was a substantial stone gutter, the channel being 7 in. deep, hollowed out of solid blocks of stone 2 ft. 9 in. broad. This presumably discharged into a drain running along Watling Street, similar to that found in the 1912-14 excavations.

The broader division of the long hall was paved with herring-bone bricks, while the narrow northern division had a mosaic floor. Wright reconstructs this as divided up into a series of large panels. It is possible that this did survive along the line of the wall, but in the centre of the room the mosaic had been completely destroyed in Roman times, a later mortar floor directly overlying its *opus signinum* make-up. The only portion found intact was a patch which had sunk badly, and been covered by a mortar levelling-up (pl. LXV, c). The floor of the portico was of hard mortar, and that to the east of the building, as to the east of the southern building, was of mortar. That of the passage dividing the two buildings, as found, was of herring-bone bricks, but there was a suggestion that this was not original, from the fact that the rendering of the north wall of the southern building went down to a depth of 1 ft. 3 in. below this floor. All traces of an earlier floor were, however, destroyed by the heavy make-up of the herring-bone floor.

There is no direct evidence of the exact contemporaneity of the two original buildings, since they were clearly structural entities. It is quite probable, however, that they were built at approximately the same time, and the dating evidence from pottery would agree with this. That for the southern building was rather scanty, consisting of three mortarium rims of the period A.D. 80-120 from the make-up of room 2, and a fragment of Samian form 37, Hadrian-Antonine in date (fig. 2, no. 7), from beneath the mortar floor to the east of the building. There was considerably more evidence with reference to the northern building. In the north portico were found two pits, cutting through the levels contemporary with the

walls on either side. The highest level cut by them was a rough brick one, which can hardly have been a floor, and which moreover was considerably lower than the drain outside the portico. They are, therefore, sealed by the first floor in use with the building. The evidence of both the Samian¹ and coarse pottery² from this points to a Hadrian-early Antonine date. Associated with this were two coins, an illegible 2 *Æ* of Claudius I, and a worn *as* of Trajan, A.D. 114-17 (M. & S. 648). The date of the group thus goes down to *c.* A.D. 140-50. Similar evidence came from north of the portico, where a level earlier than the portico contained early second-century pottery. Farther north still was a very deep pit, with vertical, rectangular sides, possibly a well, which could not be completely excavated since water level was reached at 7 ft. This was sealed by a level contemporary with the building, which had sagged badly over the filling, and beneath it, in the filling of the pit, was more second-century pottery,³ together with an illegible 2 *Æ* of the late-early second century, a worn base *denarius* of Trajan, *c.* A.D. 100 (as M. & S. 38) and a worn *sestertius* of Hadrian, A.D. 117-18 (illegible).

The evidence for a date for the buildings of about the middle of the second century is confirmed by that from levels overlying the contemporary ones on the north side (see section 2, pl. LXIX). The first layer was a burnt one, which may represent burnt wattle-and-daub buildings. In it was second-century pottery (see p. 213) and a very worn *sestertius* of Hadrian, *c.* A.D. 120-23 (illegible). Above this was a thick make-up of a new floor, levelling up the sinkage over the various pits. This contained mid second-century pottery, and a worn *dupondius* of Trajan A.D. 100-7 (illegible). The third layer was also thick, and contained much Antonine pottery, down to the end of the century.⁴ With it was a *denarius* of Caracalla, A.D. 207 (M. & S. 89) in fairly good condition.

Excavation thus showed the plan and date of the phase I buildings. The lay-out and function of the buildings raise difficult problems. There is a strong suggestion of a change in plan, for the northern building is so nearly a Basilica, and yet not quite. A clue is possibly given by the history of the Forum site on the opposite side of the road.⁵ There it was found that a Bath Building on a monumental scale had been built in the Flavian period. This, however, was never used or even completed, and apparently was left in this unfinished state until it was demolished to give place to a Forum dated A.D. 130 by an inscription over the entrance. These Baths obviously formed part of the first large-scale lay-out of the city in the Flavian period, following on the departure of the legions, and another component part of this lay-out would undoubtedly have been a Forum. It thus seems a very reasonable suggestion that this lay on the site just excavated, and that the hall was begun as the Basilica attached to this Forum. The con-

¹ Fig. 4.

² Fig. 9, nos. 16-24.

³ Fig. 9, nos. 7-13.

⁴ Figs. 5, 6.

⁵ I am indebted for this suggestion to Mr. J. P. Bushe-Fox, F.S.A.

struction of this cannot have reached as far as the southern walls of the Basilica, or the laying down of its floors, or have included any part of the Forum, for from the nave of the Basilica southward nothing conforms to the necessary plan. It would appear, therefore, that the first outburst of building activity, presumably officially inspired, for the foundation of the new town, soon died down, perhaps owing to native opposition to Romanization. The two sites on either side of the road must then have lain derelict, covered by building rubbish, until a renewal of activity in the Hadrianic period. Under the new scheme, the Forum was transferred to the west side of Watling Street, on top of the foundations of the Baths, while on the east side, the partially built Basilica was converted into a two-aisled Hall, and on the area originally allocated to the Forum was placed a large public building of an unusual type. This sequence of events is quite reasonable and in accordance with facts. It explains the oddness of the plan of the building, and such strange points as the pits dug into the building levels of the floor of the north portico, but sealed by the first floor. This would be unlikely if the construction of the building had been immediately succeeded by the laying down of the floors, but quite possible if there had been a long interval. It was from these pits that the evidence for dating the building in the Hadrian-Antonine period came, and such little as could be proved to be contemporary with the walls rather than the floors could be first century. A difference in time of planning might also help to explain the odd difference of line of the east and west walls of the southern building from those of the hall.

Of the actual function of the buildings as completed, there is little evidence. There is no doubt from their scale that they were public buildings, but no parallels can be found in the normal public buildings of a Roman town. It is just possible that the southern building formed the head-quarters of the principal civil officer of the district, with his dwelling-rooms in the western range and official rooms in the eastern one. The building has, however, nothing in common with such ones as the Legates' Palace at Xanten. The four large rooms of the eastern range rather suggest some form of law courts, perhaps used as the assize court for the surrounding district, to prevent periodical dislocation of the town business by use of the Basilica. But again there is no exact parallel. It must, in fact, be admitted that there is not enough evidence for certainty.

PHASE II

The first alterations to the original structure consisted of the addition of a suite of rooms on either side of the main block of the southern building, the joining up of the northern building to the southern, and the enclosing of the area to the east by a boundary wall.

The rooms added on to the southern building clearly belong to a double suite of bath-rooms. Their walls are everywhere obviously built up against the side walls of the original building.¹ The western addition was built in the internal courtyard, while the eastern one projected into the area which had originally been outside the building. The junction of the north wall of the addition with that of the original one is still standing to a considerable height. The new wall was set forward 3 ft. 9 in. from the line of the old one and the odd external angle thus formed is one of the strongest arguments in favour of the fact that the space to the north was not roofed. The existing wall was cut into to bond with the new one, but the bond is not a good one, and clearly not original, and the brick courses of the two do not correspond. This is visible in pl. LXII, *a* of the upper part, and pl. LXIII, *b* of the lower part of the angle. Stratigraphical evidence confirmed the structural at this point.

Sufficient remains survive of the various rooms to suggest their use. It is probable that the central block remained unheated, since the only furnace connected with them belongs to a later period. They were therefore probably used as meeting-rooms, and served the various other social functions of Public Baths. Rooms 5 and 9 were also unheated. In 9 there was a mosaic floor, of plain white tesserae, bordered by black. This floor stopped short all round on a line 1 ft. 4 in. away from the wall. This was clearly original, both from the clean edge of the concrete bedding of the mosaic, and from the undisturbed stratification beneath it, which ran up to the face of the wall. The interval between the mosaic and the wall was tightly packed with unmortared stones. At a height of 4 ft. above the floor, the walls were set back a distance of 1 ft. This ledge and the face of the wall continuing up above that height were faced with mosaic,² which is a very unusual decoration for a wall. The wall below the ledge showed no sign of rendering. It is therefore apparent, from the stopping-short of the floor, and from the decoration of the wall above, but not below, the ledge, that some sort of narrow structure stood along the walls here. This may have been either benches or lockers, and from the height it was probably the latter. Too little survived of either the floor or walls of room 5 to say if it was similarly arranged, but it probably was. These two rooms, therefore, probably formed the dressing-rooms of the two suites of baths.

Rooms 6 and 8, and 10 and 12, were heated by hypocausts. The exact system is not clear, owing to the later alterations. As found, the furnace serving 8 was at 7, but the archway between, the wall dividing 7 in half, and the steps down into 7 were all clearly secondary. From the relative sizes of the rooms, it would

¹ See pl. LXII, *a*, where the straight end of the south wall of room 6, in the left centre, was originally built up against the west wall of the main block, visible slightly to the right.

² See pl. LXIV, *b*.

be expected that the smaller, 6, would be the caldarium, and be directly connected with a furnace in 7, and that the hot air would then pass through into 8. There is, however, no sign of any such opening between 7 and 6.¹ It is possible that the opening between 7 and 8 always existed, but was rebuilt, or alternatively that there was a furnace where room 13 was later built, but there is no evidence to prove either suggestion. Both the east and the west walls of room 8 were broken too low in parts to show where there could have been openings. Sufficient of the east wall does, however, survive to show in position the massive stone sills of the doors between room 6, and 7 and 8. The corresponding wing on the east was not fully cleared, so confirmation of the doubtful points could not be obtained from there.

Bonded in with the north wall of room 9 was a wall which continued south of the east wall of the northern Hall, thus connecting the buildings structurally for the first time. This junction is clearly visible in pl. LXIV, *c*. This stretch of wall is definitely not built continuously with the rest of the east wall of the Hall. The angle of that with the south wall of the broad division of the Hall is, unfortunately, robbed very low, but the butt end of the new stretch, built against it, and over its footings, is clearly visible (pl. LXIV, *a*). The difference of period is confirmed by the stratification. The northern part of the wall is built in a very narrow foundation trench, which is sealed by a hard grey mortar level, dipping slightly into it. The southern part is built with a foundation trench 4 ft. 9 in. wide, which cuts this grey mortar level. A surface corresponding to this is found all over the area to the east of the long Hall, though in some places it looks rather crumbly, and more like a foundation spread. It would, of course, be possible that the two portions of the wall should be structurally independent, but nevertheless belong to the same building. In this case the whole Hall would be contemporary with period II of the southern building, but the connexion of the south end of the wall with the new wing is difficult. The fact that they do not so belong is suggested by two points which have already been mentioned. The first is the difficulty and impracticability of roofing such a very odd-shaped area. The second is that if the main hall of the north building had been laid out at the same time as the wing of the south building, its east wall would certainly have been on the line of the east wall either of the new wing, or of the projecting angle of the original building, instead of half-way between the two. Structural and stratigraphical evidence therefore agree in proving that it was only in phase II of the southern building that the two were linked together.

At the same time as this connecting wall was built, a room was added at the east end of the Hall, with its walls clearly built up against those of the latter. The floor contemporary with this was contemporary also with the south end of

¹ See pl. LXII, *a*, where the dividing wall is in the middle distance, beneath the two door sills.

the east wall described above. In the north-west angle of the room was found the skeleton of an infant, buried beneath the original floor of the room, and resting on the floor belonging to phase I. Its position suggested that the body was in at least two parts when it was buried.¹ Infant burials are, of course, common beside private houses,² simply as a convenient means of disposing of the bodies, which were not covered by the regulations concerning extra-mural burial. Even in private houses, however, they are clearly sometimes meant as foundation burials, and it is probable that, in a public building such as this, that is the intention.³

The north wall of this room was continued east, and then returned to the south and west, to form an enclosed courtyard. A substantial buttress was found against the east wall outside the north-east angle of the courtyard, but the wall was not cleared continuously enough to make sure whether there were similar buttresses elsewhere on the wall. A trench between the main southern building and this wall proved in the first place that there were no buildings in the courtyard, and secondly that the enclosure wall was definitely subsequent to the original southern building, thus confirming the succession of events established above (see section 1, pl. LXIX). The actual surface contemporary with the wall had unfortunately been destroyed by ploughing. The line of the southern boundary of the courtyard was found to correspond fairly closely with the boundary in the south-west corner, when Wright's very inadequate plan was enlarged to the same scale. Since much of that plan is inaccurate, the line of this wall has been slightly modified in the plan on pl. LXXI to join up with the south-west wall, but the south-west corner was not re-excavated in order to confirm this.

It is probable that the room at the east end of the Hall served as an entrance room, through which people using the eastern suite of baths passed. The blocking off of the passage between the two buildings, from which there were, according to Wright, doors into the western part of the Baths, would be consistent with this. Outside the east wall of the courtyard was found another wall at a distance of 34 ft. This was presumably the wall of the next insula, but the contemporary levels had here been completely destroyed by ploughing, so no trace of the intervening road survived.

There was not much evidence to give the exact date of phase II, and what there was did not suggest a date much later than that of phase I. In connexion with the southern building, the only stratified deposits found were those in the courtyard, to the south of room 12. There, throughout the use of the building, a series of floors, mostly with hard mortar surfaces, was added, considerably raising the level against the building, but tailing off on to the lower levels to

¹ See pl. LXV, *a*.

² See the *Verulamium Report*, pp. 138-9.

³ For report on the bones see p. 227.

the east.¹ Unfortunately, these throughout consisted of material imported from elsewhere as make-up, which was indicated not only by its early contents, much of it first-century, in all levels, but also by the extremely broken-up state of the pottery. From the phase II level came nothing later than the first half of the second century, and much which was considerably earlier. Similarly, from the levels contemporary with the additions at the east end of the hall, there was a fair amount of early second-century material, and nothing later than the middle of that century.²

The building style of the two phases is very similar. The stones of the second phase seem to be slightly larger, with an average width of 5 in. instead of 4 in., and there is a suggestion that the pitching of the stones in the interior of the wall is a trifle more pronounced. There is, however, very little to go upon, and the general appearance of the masonry is the same. It would therefore appear, from both lines of evidence, that phase II follows very soon after phase I, and should be dated about the middle of the second century A.D.

FURTHER HISTORY OF THE BUILDINGS

For the remaining periods of the buildings, there is no evidence to connect the various alterations in the northern and southern portions, and it will therefore be convenient to deal with them separately.

Bath Building: phase III. The next addition was that of a further heated room, 13, in the central courtyard, with a semicircular apse on the north side. The straight joint between this room and room 5 is clearly visible in pl. LXV, b, and the walls of the two rooms are of different thicknesses. The hypocaust was apparently served by a furnace in room 14, where Wright found much charcoal. It may have been at this period that the alterations affecting the stoke-hole of room 8, described above, were carried out, but that is not certain. In earlier reconstructions of the plan of the building, in which it was supposed that all the rooms belonged to the same period, it was imagined that room 13 was balanced by a similar one on the east side, but this was found not to be the case. Since all the deposits belonging to room 13 had been cleared away, its date could not be established. There was even no evidence to prove that it was earlier than the buildings ascribed to phase IV, except that its style of building was better and closer to the first two phases than to the latter.

Bath Building: phase IV. It was probably in phase IV that rooms 2 and 3 were provided with hypocausts, for it was at this period that a furnace, room 17, was constructed to the east, its walls being definitely subsequent to adjacent phase I and II walls. This had an entrance from the outer courtyard, with sloping

¹ Section I, pl. LXIX.

² See fig. 11, nos. 1-6.

ramp in the southern wall. The purpose of the rest of the additions in this phase is not very clear. There was a small room, 15, in the interval between the new furnace, 17, and the phase II room 10, which may have served as a fuel store, though it would not have been very accessible from outside. The south wall of the furnace returns south at its west end, and is built up against the side wall of the original building. On the west side, a wall is similarly built along the other side wall. This is clearly visible in pl. LXII, *a*, where the phase IV wall is built up against the phase II wall with a butt joint, and its face was obviously built against the phase I wall, which has since disappeared. This western wall to the south turns away from the phase I wall, and forms a small room, the southern wall of which Wright makes as continuing across room 4. No trace of this was found in a single trench across the area. The purpose of these walls parallel to the original one is not entirely clear. They were not intended as a substitute for the period I wall, as their construction shows that that was still standing to a considerable height when they were built. Moreover, if that had been taken down immediately afterwards, and sealed by a floor, it would not have been discovered by wall robbers, and the sealing would therefore have been intact. The only reasonable solution is that they were intended to strengthen the original wall, since the outside level had risen considerably, and the inside one was probably lowered at this time, in order to insert the hypocausts.

The only stratified pottery in connexion with this period again comes from the courtyard to the east, and again consists of early second-century material, much broken up, being obviously imported levelling material.

Bath Building: phase V. As mentioned above, the original furnace system of the eastern Bath wing was not uncovered. In phase V, another furnace, 16, was added to room 12. The archway in the south wall of this room is clearly an insertion (pl. LXVI, *b*), and the walls of the stoke-hole are built up against those both of phase II and phase IV. The floor level of the external courtyard was at the same time raised about 1 ft., but the levelling material was again imported, and contained only much-broken second-century material. In a level farther out in the courtyard, which apparently corresponded to this, since it was beneath the phase VI floor though not continuously connected, were two third-century sherds, rims of a mortarium, and a flanged-rim dish. It may have been at this time that alterations were made to the hypocaust of Room 3. A clumsy structure (see pl. LXVI, *a*) was found built across its centre, and over several pilae. It apparently was a species of flue, possibly to increase the draught from the furnace.

Bath Building: phase VI. The last phase in the use of the Baths was apparently one of considerable modification, as the furnaces 16 and 17 went out of use, and presumably, therefore, that wing ceased to be used as Baths. The furnace 16 was filled up and sealed by a floor which crossed the tops of its walls. The



a. Infant buried beneath east room of Hall



b. Junction of Phase II (left) and Phase III of Bath Building



c. Surviving fragment of mosaic in north aisle of Hall



d. Herring-bone floor of main division of Hall, with the Phase IV white floors shown in section

Archaeologia, Volume 88, published by the Society of Antiquaries of London, 1940



a. Hypocaust in Room 3



b. Stokehole 16, showing arch cut through Phase II wall in Phase V



c. Main division of Hall, showing rough wall built over debris, and over pit containing roofing tiles beneath wall



d. Room 17, showing layers of burning crossing broken top of wall

furnace 17 was apparently destroyed by fire, for thick layers of burning cross the broken top of its original wall, but seem to underlie one course of rebuilding along its top. This rebuild seemed also to be contemporary with the floor sealing 16, but so little of it survived that it was difficult to be certain. In the filling of 16 were some fragments of Castor ware, probably of the second half of the third century.

These changes would indicate that the Bath building was ceasing to be as elaborate as it had been. It is possible that the destruction of these portions of the building (the only portions which could be stratigraphically examined) can be equated with the destruction of the Forum opposite, about A.D. 300.¹ This was never rebuilt after that date, but there was plenty of evidence to show that the life of the city went on. Occupation of the Bath Building certainly went on, as there was yet another floor laid down outside its east walls, above the first one which sealed furnace 16. Apparently too, the hypocausts of the western Bath wing remained open, though whether in use or not is unknown, since in a disaster at the end of the fourth century, an old man crept in there with his hoard of savings and either died of suffocation or was killed.² The latest coin was one of Valens, while in another hoard on the west side of the building was a coin of Gratian. The building, therefore, apparently went on in use till towards the end of the fourth century when it was, according to Wright, destroyed by fire. No trace of any general catastrophe was found in the 1912-14 excavations, which suggested that the town disappeared in the slow decay which was the fate of most Romano-British towns.

Hall: phase III. The history of the northern building was not so complicated as that of the southern one. Only one structural addition was apparently made. In this, the room at the east end of the hall was extended to within a short distance of the north wall of the eastern Bath wing, leaving only a narrow passage in between. The original south wall of the eastern room was abolished when this extension was made, and sealed by the floor belonging to it. A small room was also made in the south-east angle of the new room. Associated with this alteration was second-century pottery, not necessarily very late,³ and a 2 Æ of Sabina, A.D. 119-38 (M. & S. Hadrian, 1024) in good condition. From a filling probably but not certainly of the same period came a *denarius* of Septimius Severus, A.D. 194 (M. & S. 447) and a *denarius* of Caracalla A.D. 206-10 (M. & S. 176), both in good condition. Since there was no Castor ware from this level, it is not likely that it dates far into the third century.

Hall: phase IIIa. The other phases which can be traced in the history of the hall are mainly those of the repair of floors rather than new structures. The floors at the east end of both divisions of the hall apparently suffered very

¹ G. Macdonald, *Roman Britain 1914-28*, Brit. Acad. Supp. Paper V, pp. 14-30.

² Wright, p. 68.

³ Fig. 11, nos. 7-11.

considerable wear. In the northern division, as described above, the mosaic was largely destroyed, and its basis covered by a new mortar surface. No dating evidence was obtained from this. The southern division had a similar history. Here, also, parts of the herring-bone flooring were destroyed and the whole east end re-surfaced with hard yellow mortar, after there had been a number of local patchings. This was followed by a hard red floor. The lower floor continued for a distance to the west, partly overlying the make-up of the herring-bone, the bricks of which had disappeared. The very small sherds of pottery associated with these two floors were of second-century date, but two small fragments of Castor ware bring the date down at least to the end of the century. These floors may, therefore, be contemporary with the phase III alterations to the east room.

Hall: phase IV. In this phase, a series of hard white floors were laid down in the east room, and at the east end of the southern division of the Hall. They sealed the room in the south-east angle of the east room, which was therefore abolished. The floors consisted mainly of lime, and associated with them was a solid block of lime, about 4 ft. 6 in. square, cutting through all floors, 5 ft. 3 in. away from the east wall of the hall and 4 ft. away from the south wall. Its base was not cleared. No stones were associated with it, so it is unlikely to be a pier, and a first impression that it was a lime-kiln was not borne out by its regular shape, and by the fact that it was definitely associated with such distinct floors. Its purpose, therefore, remains obscure.

The make-up and occupation layers between the various layers of white floor varied considerably in thickness, as did that of the floors themselves. The make-up of the top floor in the hall continues as a thick rather sandy layer as far west as was examined, about 80 ft. A considerable amount of pottery of the second half of the third century was found, including one fairly complete thumb pot and a number of small sherds of Castor ware, and of some of Rhenish ware.¹ The contents of the three layers did not suggest any great difference in date between them.

Hall: phase V. Above the highest of these white floors was found a continuous layer of burning and debris containing third- to fourth-century material (not closely datable). This apparent destruction did not, however, mean the abandonment of the building, for above it, and cutting into it, and also on top of a pit cut through the herring-bone floor and containing an *antoninianus* of Tetricus II, A.D. 270-3 (M. & S. 270), was found the bottom course of a very rough wall, running across the southern division of the hall, at a distance of 13 ft. from the east wall of the building.² All trace of any floor level associated with it had been destroyed by ploughing. It is, however, clear that at some time at, or after, the end of the third century, the building was destroyed and partially re-used.

¹ Fig. II, nos. 12-17.

² Pl. LXVI, c.

A considerable number of fourth-century coins and a quantity of pottery of that date were found in the humus, so there must have been quite extensive fourth-century levels.

SUMMARY OF RESULTS

The combination of the results obtained from the excavations on the defences and those on the buildings gives a fairly clear picture of the history of the city. The lay-out of the city was not apparently begun before the Flavian period, when, it may be suggested, the removal of the legions was followed by the transfer of the tribesmen of the Cornovii from the Wrekin to the riverside site. The first lay-out of the public buildings was not completed, though there is abundant evidence for private buildings of the Flavian period from the 1912-14 excavations. It is possible that work on the buildings was suspended in favour of that on the first defences, for they date from the very end of the first or beginning of the second century. After an interval of twenty to thirty years from this, work on the public buildings was once more undertaken, on a completely new plan. The first building to be completed was the Forum dated, from an inscription, A.D. 130, and this was followed by a Hall, possibly originally begun as the Basilica, and a large official building to the south. These probably date *c.* A.D. 140-50. At about the same time, the defences were rebuilt, this time with a stone wall, and included a considerably larger area. Shortly afterwards alterations were carried out in the hall and adjoining building. They were linked together and the southern one converted into a Bath building, the whole having a large courtyard connected with it to the east. The subsequent history of the two buildings is uneventful down to *c.* A.D. 300, merely consisting of minor alterations and additions. About that date, however, both seem to have been destroyed by fire, as was the Forum over the way. Both seem to have been partially restored to use, but only in a slipshod manner. At the same time, the area of the city may have contracted to that of the first-century one, and the line of the first-century defences on the north side may have been re-used. For the last century of Roman rule, no direct evidence was forthcoming, as all the levels had been destroyed by ploughing, but the amount of fourth-century material, both coins and pottery, clearly show that there was considerable occupation. Such, in outline, was the history of Viroconium Cornoviorum.

APPENDIX

Samian Pottery from Wroxeter

By J. A. STANFIELD

Fig. 2, nos. 1-6. From levels prior to the Hall and Southern Building, selected as representing the earliest Samian on the site:

1. In pit beneath east room of Hall. Form 30, burnt black. The fine single-bordered ovolo with tassel terminating in sharply cut star-rosette is one of the earliest used on South Gaulish examples of this form, and the wavy ridge above it is in keeping. The ornament below, if completed, would probably be a built-up motive, with symmetrical spirals and a fine palmate leaf between, a style frequently met with on form 30 of the date of this fragment, i.e. Claudius-Nero.
2. Eastern Courtyard, beneath earliest surface. Form 29, good but not high glaze. Fine profile with generously rounded carination and central moulding flanked by rows of large beads. The fragment is too narrow in width to determine the full design, but that of the upper frieze was probably a series of festoons, each loop containing a spiral, terminating in a rosette, accompanied by a tendril with a triple leaf joined by three narrow beads. The lower frieze was a winding scroll inset with wreaths following the line of the scroll. The bird looking backward is probably the commonest on South Gaulish Samian of the first century A.D. and was used as early as the time of AMANDVS (Knorr, 1919, Taf. 6, A) although this bowl is later. Date: Claudius-Nero.
3. As 1. Ritterling type 9A; two fragments united in one section. High glaze. Date: Nero.
4. As 2. Form 24, high glaze; good incurved profile and very neat workmanship. Date: Nero.
5. Outside Eastern Courtyard, in level earlier than Courtyard Wall. Similar cup; two fragments. Not so highly glazed as the last and with a straighter rouletted wall. Date: Nero.
6. As 2. Form 33, profile slightly incurved but not enough to ascribe a later date than Nero.

Fig. 2, no. 7. In Eastern Courtyard, in level contemporary with Southern Building.

7. Form 37, Lezoux, clearly attributable to the potter CINNAMVS on whose signed work the large ovolo with tassel bent to the left, the large beads, the long astragalus, the large double-ringed medallion enclosing the Victory, Déch. 474, are frequently met with. The cock, Déch. 1023, I have not actually seen on any bowl stamped by the potter, but it is ascribed by Déchelette to CERIALIS, who was an associate of CINNAMVS. Date: Antonine.

Fig. 3, nos. 8-10. Filling of second period of eastern defences ditch.

8. Form 29, being the upper of the two rouletted mouldings sharply curved in section with unusually well-marked internal ridge. High glaze. Probably a part of the following bowl, no. 9.

9. Form 29, upper frieze, high glaze, sharply-cut moulding. The design is a series of superimposed circles (corded) with a very sharp star-rosette in each of the lateral spaces and two in the remaining spaces. The design is exactly the same as used by the potter *ALBVS* (*vide* Knorr, 1919, Textbild 43, *ALBVS FE*, and dated by him Claudius-Nero).
10. Ritterling type 12; part of the spout on the projecting flange. High glaze. Date: Nero.

Fig. 3, nos. 11-16. Secondary bank of eastern defences.

11. Form 27, upper wall and short section of lower. The profile is bold but slightly flatter than earlier examples. Date: Vespasian.
12. Curle type 11; projecting curved flange and top of wall. One leaf and stalk of the barbotine decoration remains. Date: Vespasian.
13. Scrap, probably form 37, South Gaulish. Remains of a cruciform ornament with legs of a bird at the top. Date: Flavian.
- 14, 15, 16. Form 37, Lezoux manufacture. I think that these three pieces are all part of the same bowl as, besides other similarities, they all possess the bead-border made up of small conjoined astragali. The ovolo (no. 16) is one of those used by *CINNAMVS*, who also used the astragalus bead-rows, the bear, Déch. 820 (nos. 15 and 16), the panther, Déch. 1798 (no. 15), and the ubiquitous hare (no. 14). I have not met with the seated figure of Paris, Déch. 491 (no. 14) on his signed work but, notwithstanding this, I think the bowl is clearly by *CINNAMVS*. Date: Hadrian-Antonine.

Fig. 4. Levels contemporary or immediately prior to Hall (for coarse pottery see fig. 9).

17. From deep pit north of North Portico.¹ Form 37, South Gaulish. Part of scroll with arched concavities divided so as to form lunette panels filled with triangular leaf-tips. Date: Flavian.
18. As 17. Form 37, South Gaulish. Part of the group of hares with plant between them, Déch. 941 and 949, used by the potters *M. CRESTIO* and *MERCATOR*, among others. Below this was probably a lower frieze of festoons. Date: Domitian.
19. Floor of North Portico. Form 37, Central Gaulish (Vichy?). Portion of large scroll in the South Gaulish manner. The uncommon triangular leaf occurs on Déch. 67 at the British Museum (M. 595) in association with a little cross-ornament and a seven-bead rosette used by both *MEDETVS* and *RANTO*. Date: Trajan.
20. As 17. Form 37, Central Gaulish (Vichy?). Panel design divided by slender wavy lines. Above a large triple 'Poppy-head' ornament is the small warrior, Déch. 102, much used on Trajanic pottery, notably on fragments in the style of *RANTO* and by the anonymous potters called for convenience 'the Anchor Potter' and 'the Crown Potter'. The bowl could not be by the former of the two last named, as he invariably used bead-rows, but the latter, with equal consistency, divided his panels by fine wavy lines only, so that the fragment is possibly his work. Date: Trajan.

¹ For full details of levels see coarse pottery section, pp. 209-22.

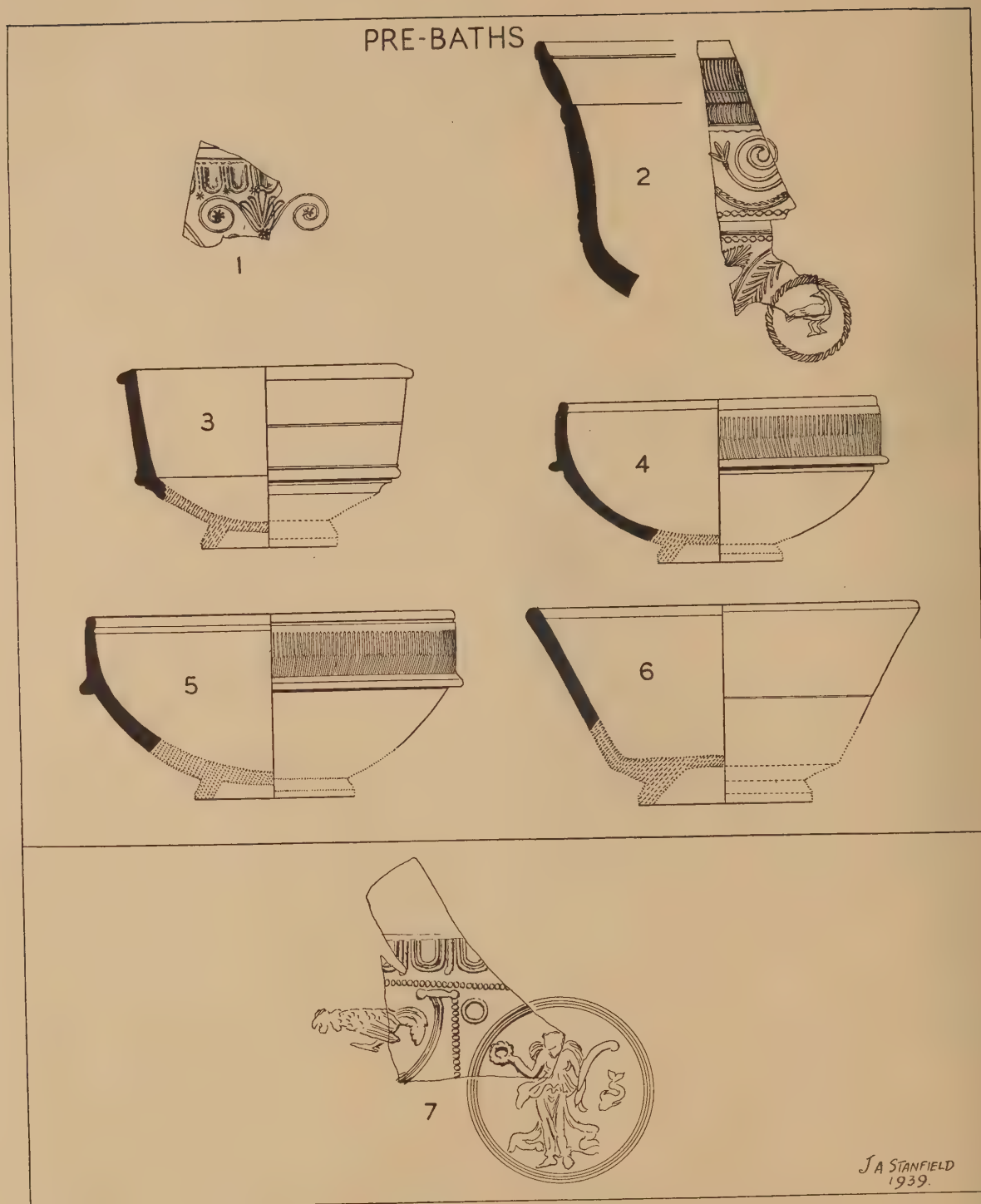
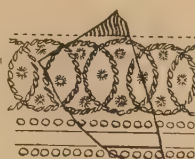


Fig. 2. Samian Pottery ($\frac{1}{2}$)

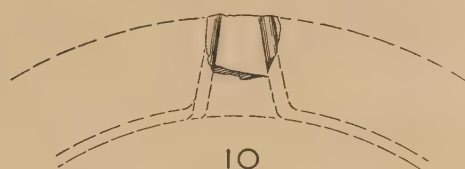
DITCH-FILLING



8

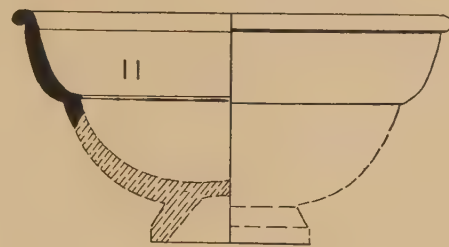


9

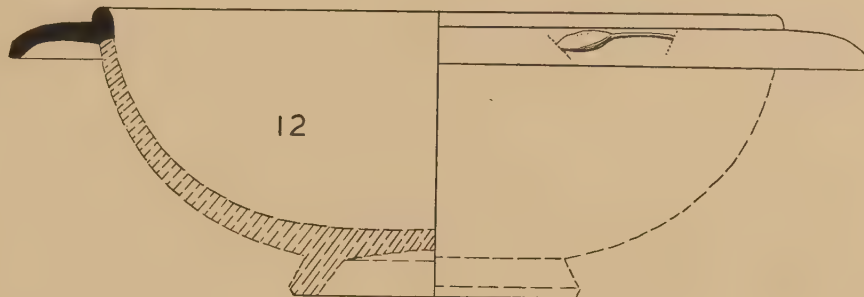


10

SECONDARY BANK



11



12



13



14



15



16

J.A. STANFIELD
1939

Fig. 3. Samian Pottery (1/2)

21 and 22. As 17. Form 67, Central Gaulish (Vichy?). A very small but highly interesting scrap bearing the double-D monogram, class I.¹ Fortunately a much larger fragment of form 67 exists at the Guildhall Museum (from the Bank of England), and the two fragments have been drawn together, the Wroxeter fragment having been superimposed on the drawing of the London fragment. Similarly with the section, the Wroxeter piece being shown in solid black. The Wroxeter and London fragments are the second and third examples of form 67 on which the double-D, class I, monogram has been found, the first being in the Stanfield Collection and already published.²

The important thing about these little pots, i.e. the three mentioned above, that mentioned under fig. 4, 19, and two others, both in the London Museum (A. 23753 and A. 25191), is that the three on which the double-D monogram occurs and also the others are certainly in the style of the potters **MEDETVS** and **RANTO**. They exhibit decorative elements used by both, among which may be mentioned the little cross already mentioned under fig. 4, 19, the small 'butterfly' ornament, the seven-bead rosette, and the fine wavy line.

It seems clear, therefore, that these potters occasionally used the double-D, class I, monogram, most likely to mark their association with a potter whose name bore the initial D. In view of many concordances between the work of **RANTO**, **IOENALIS**, and other Trajanic potters, I have suggested elsewhere that this potter was **DONNAVCVS**. Date: early Trajan.

- 23. As 17. Form 37, Central Gaulish. A small scrap showing part of a large medallion with an external series of loops like little horse-shoes. This may be ascribed to the potter **DOCILIS**, for the looped medallion occurs on a 37 in Carlisle Museum which bears the fragmentary signature of that potter. Date: Trajan-Hadrian.
- 24. As 17. Form 27, incomplete. A late example, as the upper part is almost straight in section and tends to bulge over the lower part of the wall. Similar cups with flattened upper walls were found at Birdoswald.³ Date: Hadrian.
- 25. As 19. Form 37, Lezoux. The figure, Déch. 400, was used by several potters including **BVTRIO** and **DOECCVS**. The bead-row, however, is too large to have been used by the former, but **DOECCVS** habitually used large beads and the fragment may with more likelihood be ascribed to him. Date: Hadrian-Antonine.
- 26. Filling of pit below floor of North Portico. Form 37, Central Gaulish. Panel design. On the left is part of a tripod used by several potters in the time of Trajan, and under the festoon is a row of S-shaped ornaments also used by several potters, so that it is difficult to make a suggestion as to the authorship of the fragment. Generally the style is that of **DRVSVS**. Date: Trajan-Hadrian.
- 27. As 26. Form 37, Lezoux. A scrap, on which remains part of the dancer, Déch. 214 (the larger figure, the smaller being reproduced on fig. 5, 34) used by **BANVVS**, **LASTUCA**, **PATERNVS**, and **ALBVCIVS**, any one of whom (as any other supporting details are absent) could have made the bowl. Date: Antonine.

¹ T. Davies Pryce and Felix Oswald in R. E. M. Wheeler, *The Roman Fort near Brecon*.

² *Ibid.*

³ Eric Birley in 'Excavations on Hadrian's Wall, etc.' (*Cumberland and Westmorland Antiquarian and Archaeological Society's Transactions*, vol. xxx, fig. 11, 5 and 6).

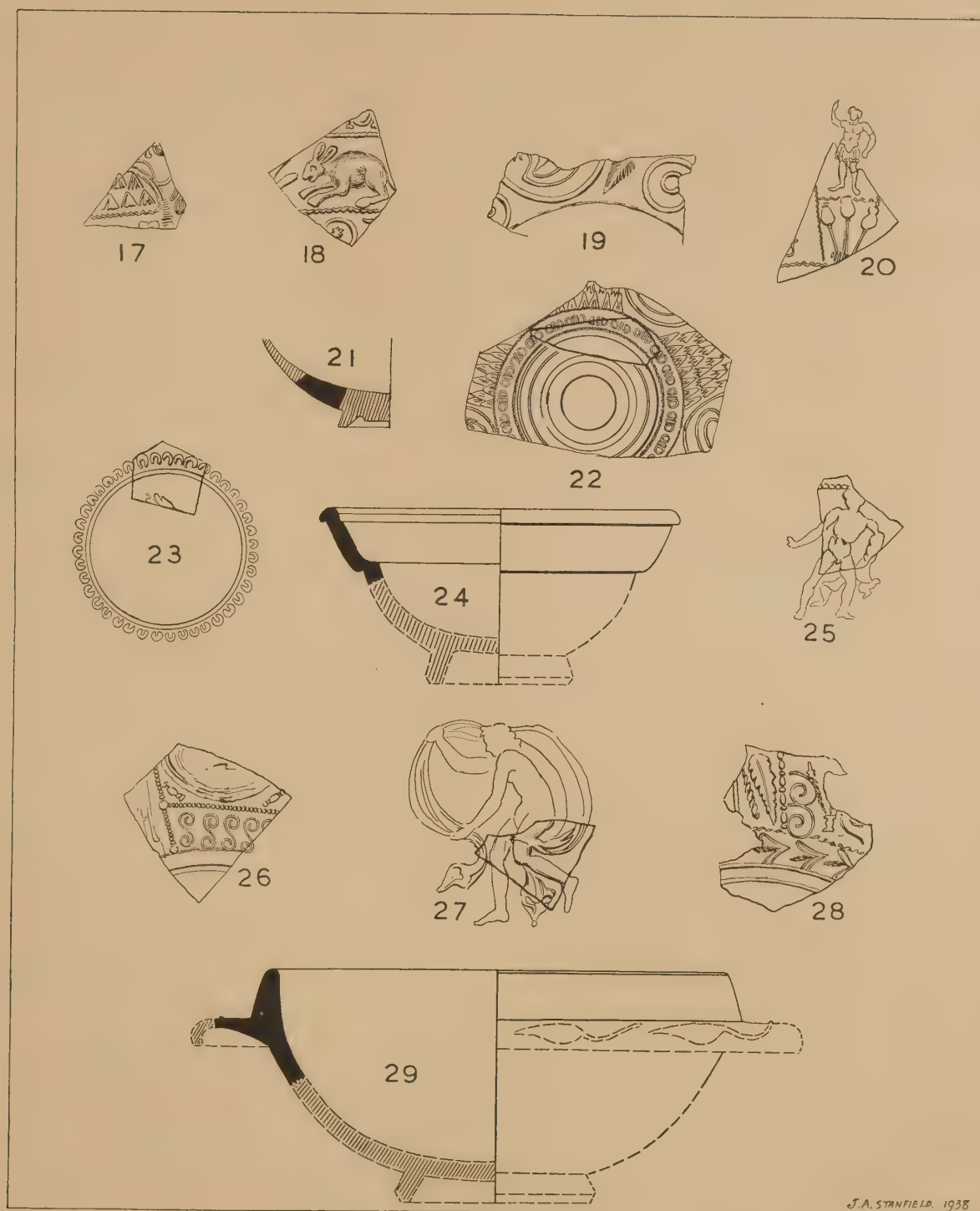


Fig. 4. Samian Pottery ($\frac{1}{2}$)

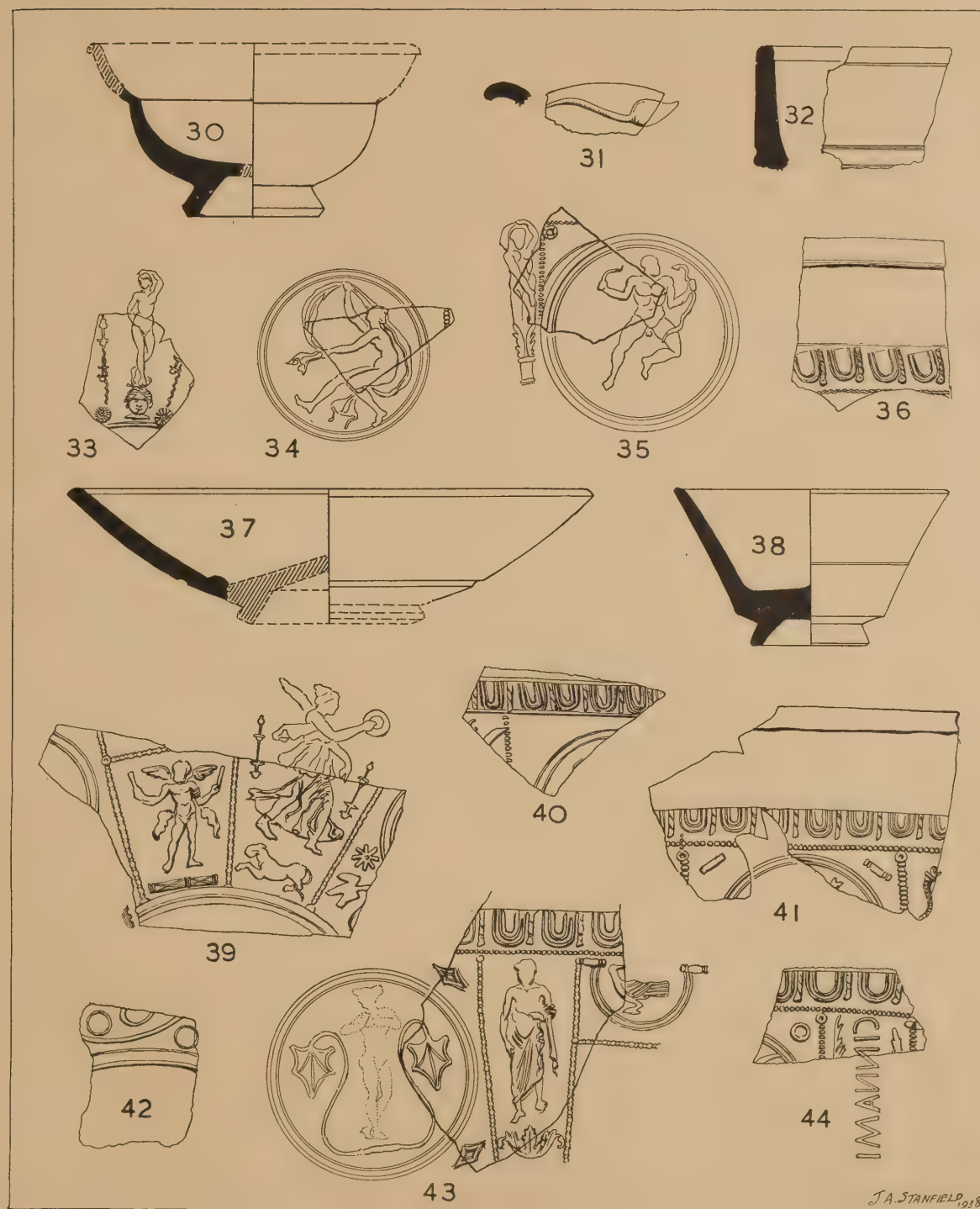
28. As 19. Form 37, Central Gaulish. Part of a large leaf-cross ornament and detached spirals, a panel border composed of large astragali, a wavy line and a lower wreath of double leaves with a striated bud between them. *MOXSIVS* (whose early work is Trajanic) used very similar spirals, and *QVINTILIANVS* sometimes used a very similar basal wreath. It will be noticed that the ridge below the wreath is double, a characteristic of the group of potters that included Quintilianus. Date: Trajan.
29. As 17. This appears to be an aberrant form possessing characteristics of both Dragendorff 38 and Curle 11. The wall above the flange is more in accordance with the former shape, although its external profile slopes inward towards the top. On the other hand, although this part of the wall is much higher than that of Curle 11, the flange is narrow and but little down-turned. Further, it is decorated *en barbotine*, as a small length of stalk on the upper surface is sufficient to prove. A similar bowl has been found at Verulamium.¹ Date: Hadrian-Antonine.
- Not illustrated.* Scrap of form 37, South Gaulish, date: Domitian. Two fragments of large 38 very much like that illustrated in fig. 6, 52. Date: Antonine.

Fig. 5. From third layer above period I, north of Hall (see fig. 10, nos. 6-26 for description of level and coarse pottery).

30. Form 27, incomplete. The foot-stand shows no trace of the earlier external groove present on that illustrated on fig. 8, 66. Date: Trajan.
31. Form 35. Only a small scrap of the rim is preserved. Date: Hadrian.
32. Form 45, a portion of the upper wall only remains, and this is almost straight externally on the small side. Date: Antonine.
33. Form 37, Lezoux. Panel decoration demarcated by wavy lines embodying a small baluster ornament. Large sharp stellate rosette terminals. The figure is Déch. 326 ascribed to *LIBERTVS*. The fragment can be definitely attributed to the potter *BUTRIO*. Date: Trajan.
34. Form 37, Lezoux. Double medallion enclosing the dancer, Déch. 214 (i.e. the earlier and smaller figure, the later and larger one occurring on fig. 4, 27). This figure was used by *AVSTRVS*² and also occurs on fragments in London in the style of the *DONNAVCVS* group of potters. Date: Trajan-Hadrian.
35. Form 37, Lezoux. Panel design with wavy line under ovolo but with bead-rows as panel divisions, a mixture characteristic of the Trajan-Hadrian period. To the left is the Caryatid, Déch. 655 series, and, to the right, in a large double medallion, the Hercules, Déch. 464. Both these figures, as well as the ring surmounting the bead-row, were used by *CRICIRO*, to whom this piece may be credited. Date: Trajan-Hadrian.
36. Form 37, Lezoux. Deep rim and large, well-moulded ovolo with two borders and rope-like tassel with ring terminals. Each unit of the ovolo is well separated and placed askew. Wavy line. Date: Hadrian.
37. Form similar to Dragendorff 31 but with internal quarter-round moulding at

¹ A. W. G. Lowther, 'Report on Excavations at Verulamium in 1934', *Antiq. Journ.*, xvii, 1, fig. 8, 3.

² R. Knorr, *Die westfälischen Sigillata-Töpfereien von Blickweiler, etc.*, Textbild 35.



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Fig. 5. Samian Pottery ($\frac{1}{2}$)

junction of wall and base. This shape may be regarded as a later development of Dragendorff form 15, and attention has elsewhere been drawn to it.¹ Date: Hadrian-Antonine.

38. Form 33. Date: Antonine.

39. Form 38, Lezoux. This fragment provides the excuse for as good an exercise in attribution by elimination as could be desired. To begin with, the Cupid bearing torches, Déch. 265, was used by Albucius, Banvus, Lastuca, Laxtucissa, Libertus, Paternus, Austrus, Birrantus, Putriu, Q. I. Balbinus, and Advocisus. Next, the Victory, Déch. 484, was used by Albucius, Aventinus, Banvus, Decimanus, Attianus, and occurs on fragments in the style of Docilis and Q. I. Balbinus. The Dolphin, Déch. 1052 reversed, the tail of which is seen on the right, was used by very many potters, among whom (of the potters mentioned above) was Paternus. It was also used by Servus. The little feline, Déch. 805, was used by Albucius, Cinnamus, and others. The 'fasces' (usually of three joints but here only two) were used by Albucius, Paternus, Laxtucissa, Cinnamus, Q. I. Balbinus, Servus, Butrio, and occurs on fragments in the style of Justus. The small baluster ornament was used by Butrio, Januarius, and Servus.

It will be seen that the figure types by themselves are much too common to assist in the identification of the potter. The next step, therefore, is, on grounds of style, to reject most of the above-mentioned potters, leaving for consideration Albucius, Laxtucissa, Paternus, Q. I. Balbinus, Servus, Cinnamus, and Butrio. The decisive factors are the panel borders which are composed of small conjoined astragali, and the small baluster ornament free in the field behind the Victory. Here again Butrio, Laxtucissa, and Paternus may be ruled out, as they did not use this type of border (Paternus occasionally used a border of larger astragali; fig. 6, 56).

This reduces the choice to Albucius, Q. I. Balbinus, Servus, and Cinnamus, who all used the border. Of these again Albucius and Cinnamus may be eliminated, as the baluster does not occur in their work so far as I know it. We are therefore left with Servus and Q. I. Balbinus, and although the former (in his work of this date) used the baluster, astragali, and fasces, I have not met with the figure-stamps in his work.

Q. I. Balbinus alone remains, and the Wroxeter fragment may be attributed to him. The evidence of final proof rests in the Guildhall Museum in which there is a piece of form 37, on which occurs the 'Fasces', the free baluster, the astragalus bead-rows, the Cupid with torches, and the advanced foot and part of the dress of the Victory, all together. It bears the stamp Q. I. B. Date: Hadrian.

40. Form 37, Lezoux. Clumsy ovolo of a type similar to that on no. 41, but of poorer quality. Date: Antonine.

41. Form 37, Lezoux. This may be safely ascribed to CINNAMVS, who used an identical ovolo, large beads, astragalus, and cornucopia. Date: Antonine.

42. Form 37, Lezoux. Portion of scroll. Date: Antonine.

43. Form 37, Lezoux. This is also undoubtedly the work of CINNAMVS, all the types being his (including the panel border of conjoined astragali mentioned under no. 39).

¹ J. A. Stanfield, 'Unusual Forms of Terra Sigillata', *Arch. Journ.* xxxvi, fig. 7, 35 and fig. 14, 65.

The Venus, Déch. 185, tentatively added, was used by CINNAMVS in this way and is a likely addition. Date: Antonine.

44. Form 37, Lezoux, stamped CIN(NAMI) retrograde. Date: Antonine.

Fig. 6. As fig. 5.

45 and 48. Form Curle 21, two examples. Date: Hadrian-Antonine.

46 and 47. Form 37, Lezoux. Two fragments of the same bowl on which occur the two Cupids, Déch. 264 and 261, used by many potters. As, however, PATERNVS used both, and the ovolo is like one of his, perhaps the fragments may be ascribed to him. On the other hand, the ovolo is also similar to that used by ADVOCISVS, as is also the small-bead border, while the very uncommon ornament (bucranium?) on the left of no. 46 occurs on an unpublished fragment from Corstopitum undoubtedly in the style of the latter. Date: Antonine.

48. See under no. 45.

49. Form 37, Lezoux, attributable to the potter CALETIUS. The basket, Déch. 1084, is ascribed to him, and the Pan, Déch. 412, occurs on unpublished fragments at Corstopitum in his style. Date: Antonine.

50. Form 30, Lezoux. Base only. This Central Gaulish base may be usefully compared with that of the late first-century South Gaulish form illustrated on fig. 7, 58, and although the Lezoux variety is much larger, the differences are worth noting. Date: Antonine.

51. Form 37, Lezoux. In a double medallion is the kneeling warrior, Déch. 394, much used by DOECCVS. Probably in the space under the figure was his double-D monogram, as in a 37 in the Yorkshire Museum stamped DO(IICCI). Date: Antonine.

52. Form 38, large size. Date: Antonine.

53. Form 37, Lezoux. Scroll design with large leaves of a very common type. A similar free ring was used by MERCATOR. Date: Antonine.

54. Form 37, Lezoux. Clumsy work. The small squarish ovolo was used by MERCATOR, as in an unpublished form 30 from Corstopitum, stamped MERCATOR M (ret.), and also the large rosettes, as on form 37 from the same place with the same stamp. The rather clumsy 'Fasces' ornament and the seated satyr with wineskin (similar to Déch. 362) both occur on yet another 37 from Corstopitum in the style of this potter. Date: Antonine.

55. Form 37, Lezoux. Free style. Date: Antonine.

56. Form 37, Lezoux. A well-executed bowl bearing the curiously ligatured name-stamp PATERNI FE. The ovolo is the commoner of the two generally used by the potter (apart from an earlier one). Below is a border of small beads, but the panel borders are composed of large conjoined astragali. The thick blunt astragali free in the field are very characteristic, as also are the tripod, Déch. 1071, the Triton, Déch. 16, the Sea-bull, Déch. 35, the masks and the little column-on-plinth between them. Date: Antonine.

57. Form 37, Lezoux. This ovolo was used by ALBVCIVS, but also by PATERNVS (see no. 56), but the bead-row (indistinct but apparently of small astragali) would perhaps make attribution to the former potter more likely. Date: Antonine.

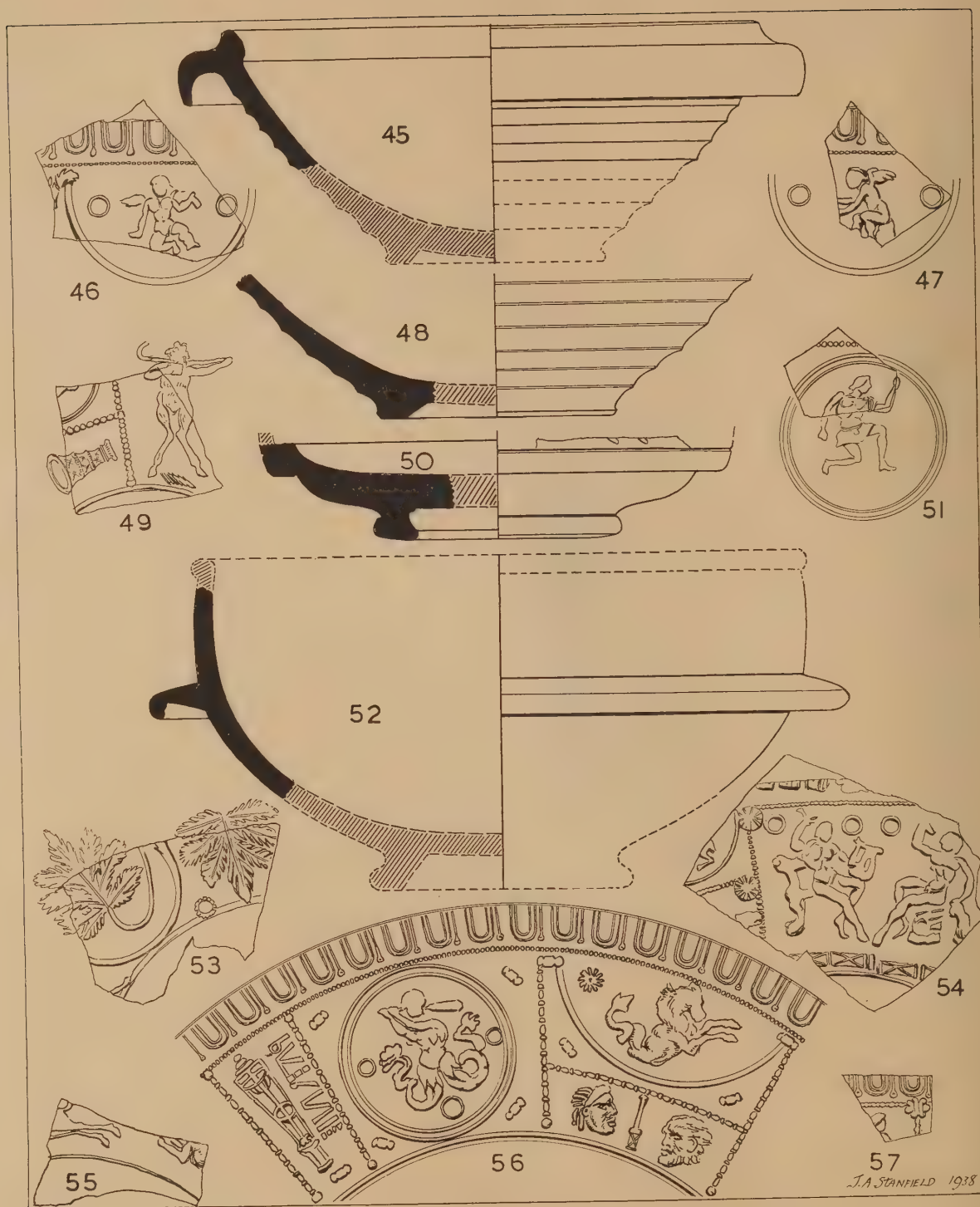


Fig. 6. Samian Pottery ($\frac{1}{2}$)

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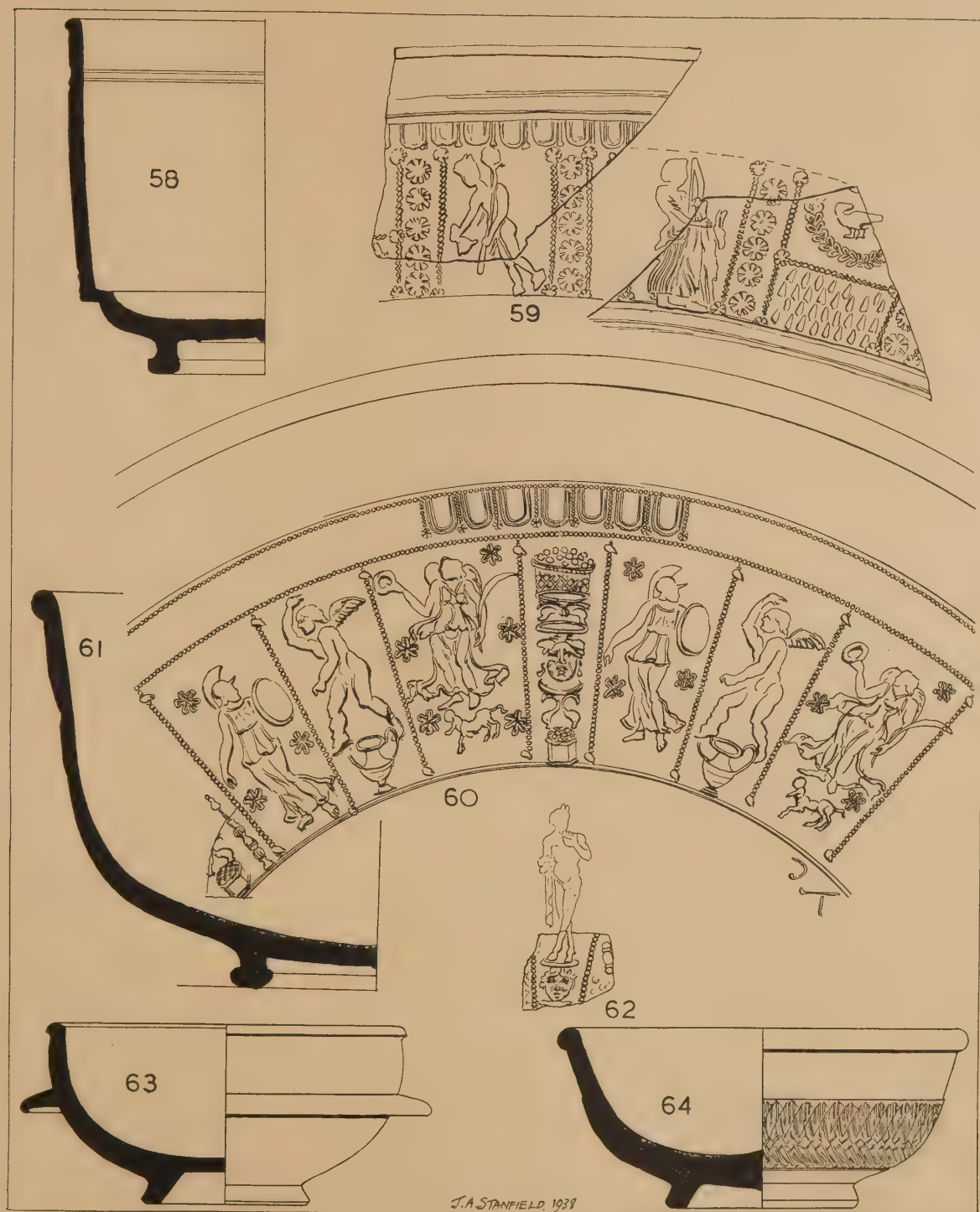


Fig. 7. Samian Pottery ($\frac{1}{2}$)

Not illustrated. Fragment of form 30 (Lezoux), more clumsy than fig. 6, 50.

Date: Antonine.

Portion of a poorly glazed vessel of globular shape, possibly a Ludowici type.

Date: Antonine.

Scrap of Form 37, Lezoux. Cupid, as in fig. 5, 39. Date: Hadrian-Antonine.

Fig. 7. From cut through early northern defences, section C. For coarse pottery see pl. LXX, fig. 12, nos. 12, 13.

58 and 59. Unstratified. Form 30, South Gaulish; two fragments. Poor workmanship, the ovolo being indistinct and the borders of wavy lines hardly maintaining their character as such. The Mercury, Déch. 299, was used by a potter who inscribed his bowls with the fragmentary signature GRA . . . , retrograde (Knorr: Rottweil,¹ etc.). A much larger fragment of form 37 by the same potter exists, however, in the Guildhall Museum, similarly inscribed GRA . . . , retrograde, followed by another letter which appears to be an 'I' or the vertical stroke of a 'T', so that the full name might be GRATVS instead of GRACCHVS, as usually assumed. The Guildhall bowl exhibits, in addition to the Mercury of no. 42, the Diana and hind, and the same ovolo and poor wavy lines. The potter CRVCVRO also used the Mercury,² but in that case the Diana is different. Date: Domitian.

60 and 61. In make-up of road at back of, and later than, early bank. Form 37, Central Gaulish (Vichy?). This bowl is an important and interesting discovery, as it is by the potter ACAVNISSA, being inscribed, moreover, with the not previously recorded initial AC, retrograde, instead of the usual full signature. It is interesting to note that in this the potter followed the same practice as CRICIRO, who inscribed his bowls with the initial CR, retrograde, as well as with his full name. Furthermore, this is not the sole example of Acaunissa's abbreviated signature, as a form 37 in the British Museum (M. 1464) in the free style, also bears the inscribed AC, retrograde.

The decorated pottery of Acaunissa has been dealt with by Dr. Felix Oswald and the references that follow are to his publications on the subject.³ The ovolo is the typical one with bearded tassel and rosette terminals composed of a ring of small beads. One new feature of the Wroxeter bowl, not shown on the drawings of the potter's other bowls, is the bead-row above the ovolo as well as below it, but this, if originally present in the other examples, may have been planed off in the finishing process.

In the incomplete panel to the left is the baluster ornament (AC. I, pl. iv, 3, AC. II, fig. 26, 2). In the next panel is the Minerva, Déch. 77 (AC. I, fig. 7, AC. II, fig. 26, 3a, fig. 27, 4), and then the Cupid, Déch. 251 (AC. II, fig. 26, 3). Under the Cupid is the vase, Déch. 1075, not previously accredited to Acaunissa.

¹ R. Knorr, 'Terrasigillata der Zeit Vespasians in Rottweil und in Pompeji' (*Württembergische Vergangenheit*), Textbild 2, 3.

² *Ibid.*, Textbild 4, 1.

³ Felix Oswald, 'Bowls by Acaunissa from Birdoswald, Mainz and Cologne' (*J.R.S.*, 1929), and 'Bowls of Acaunissa from the North of England' (*J.R.S.*, 1931), referred to above as AC. I and AC. II respectively.

The remainder of the types, except the six-rayed rosettes (AC. II, fig. 26, 3, fig. 27, 4) are also new, viz. Victory, Déch. 474, the little centaur below her (Déch. 435), and the ornament in the next panel (of which Dech. 1069 and *a* are components), also used by Cinnamus and others.

The section of the bowl (61) shows a comparatively high foot-stand which possesses some of the earlier Trajanic features. Date: early Hadrian.

62. Unstratified. Form 37, Lezoux. The figure of Pan (Déch. 411) is so common that an ascription to any particular potter would be unreliable. The free astragalus, however, is not of a late type. Date: Hadrian-Antonine.
63. As 60. Form 38, of the smaller size. Date: Hadrian-Antonine.
64. Form 37, rouletted technique. The rouletting is coarse and the bowl is remarkably thick and clumsy in section. Date: Antonine.

POTTERS' STAMPS

Fig. 8.

65. From third layer above period I, north of Hall. . . . ACI MAN. On base of form 18. Stamp of ARDACVS of La Graufesenque. Date: Claudius-Nero.
66. From layer prior to east room of Hall. ARDAC . . . On base of form 27 (large), with external groove in foot-stand. Stamp of ARDACVS of La Graufesenque. Date: Claudius-Nero.
67. Unstratified. OFELICIO, retrograde. On base of form 18. Stamp of FELICIO of Montans. Date: Domitian.
68. As 65. LVPINI M. On base of form 18. Stamp of LVPINVS of Lubie. Date: Domitian.
69. As 65. . . . CCI . MAN. On base of form 18. Probably stamp of IVLICCVS of Lezoux. Date: Trajan.
70. From layer pre Hall, on north side. OF SIIVI . . . On base of form 18. Stamp of SEVERVS of Lezoux. Date: Hadrian-Antonine.
71. Unstratified. AISTIVIM. On base of form 18/31. Stamp of AESTIVVS of Lezoux. Date: Hadrian-Antonine.
72. Second layer above period I, north of North Portico. AESTIVIM. On base of Walters 79. Stamp of AESTIVVS of Lezoux. Date: Hadrian-Antonine.
73. Unstratified. IVLLINIM. On base of form 33. Stamp of IVLLINVS of Lezoux. Date: Hadrian-Antonine.
74. As 72. CAPELLI . . . On base of form 33. Stamp of CAPELLIVS of Lezoux. Date: Hadrian.
75. Unstratified. ATTILLVS. On base of form 18. Stamp of ATTILLVS of Lezoux. Date: Hadrian.
76. Unstratified. ALBVC . . . On base of form 18/31. Stamp of ALBVCIVS of Lezoux. Date: Hadrian-Antonine.
77. Unstratified. CESORINI. On base of a large bowl, probably form 38. Stamp of CENSORINVS of Lezoux. Date: Hadrian-Antonine.
78. Unstratified. C . VCCI . LL . IM. On base of form 33. The dots are placed in a capricious manner. Stamp of CVCCILLVS of Lezoux. Date: Antonine.

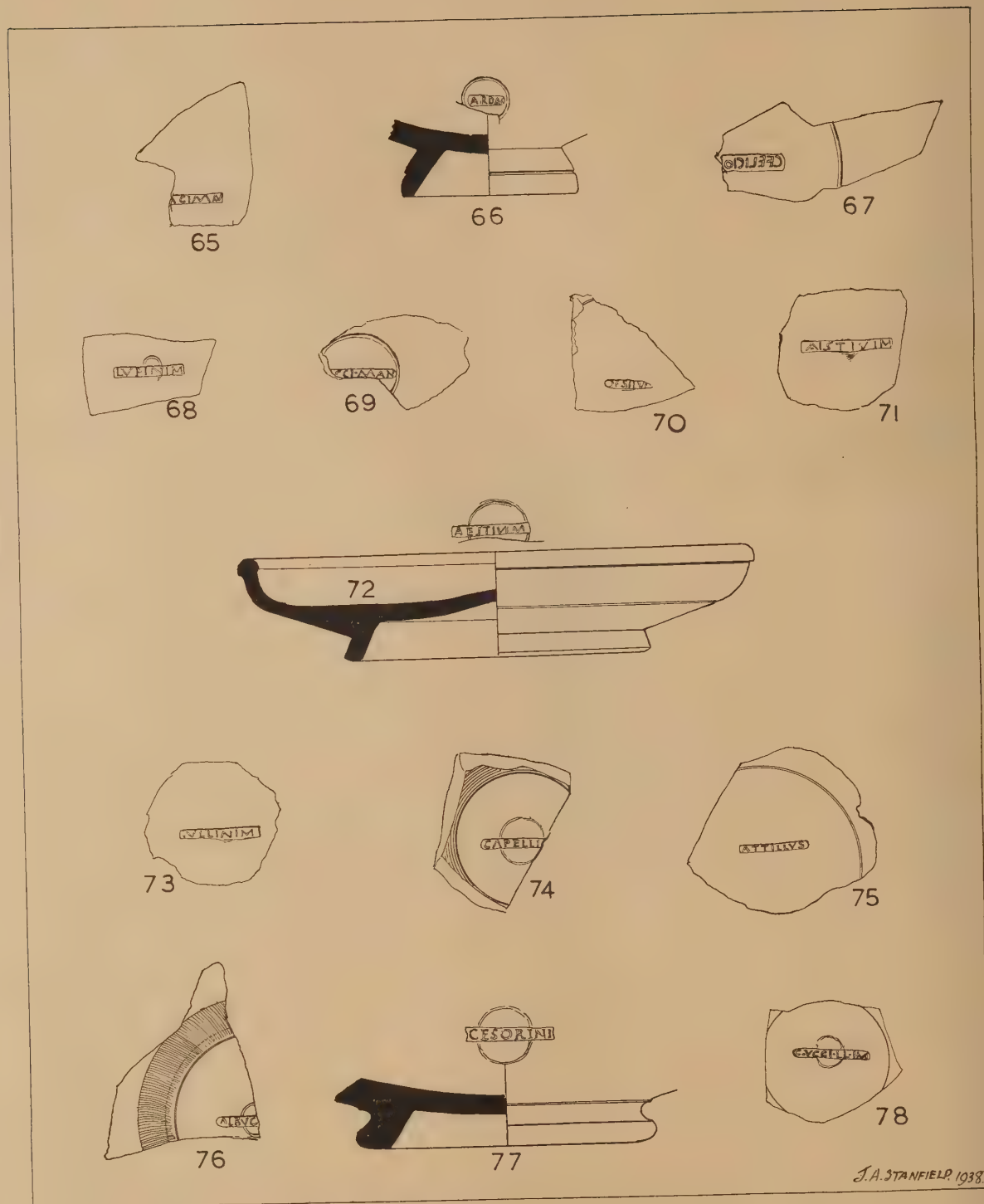


Fig. 8. Potters' Stamps ($\frac{1}{2}$)

COARSE POTTERY

The references in this section are to the following works :

- Ambleside: *Exploration of the Roman Fort at Ambleside*, by R. G. Collingwood, *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*, New Series (referred to in the rest of this list as *C. & W.*), xiv and xv.
- Appletree Turret: *Excavations on the Line of the Roman Wall*, by F. G. Simpson, etc. *C. & W.*, xiii.
- Balmuildy: *The Roman Fort at Balmuildy*, by S. N. Miller.
- Bar Hill: *The Roman Forts on the Bar Hill*, by G. Macdonald and A. Park.
- Birdoswald: *Excavations on the Line of the Roman Wall*, by F. G. Simpson, etc. *C. & W.*, xiii.
- Brecon: *The Roman Fort near Brecon*, by R. E. M. Wheeler.
- Caerleon: *The Roman Amphitheatre at Caerleon, Monmouthshire*, by R. E. M. Wheeler and T. V. Wheeler, *Archaeologia*, lxxviii.
- Corbridge: *Corstopitum: Report on the Excavations in 1911*. Pottery section by J. P. Bushe-Fox. *C. & W.*, viii.
- Gellygaer: *The Roman Fort of Gellygaer, Glamorgan*, by J. Ward.
- Hardknot: *Explorations at Ambleside, etc.*, by R. G. Collingwood. *C. & W.*, viii.
- High House Turret: *Excavations on the Line of the Roman Wall*, by F. G. Simpson, etc. *C. & W.*, xiii.
- Kanovium: *Excavations on the site of the Roman Fort of Kanovium at Caerhun, Caernarvonshire*, by P. K. Baillie Reynolds.
- Kilpatrick: *The Roman Fort at Old Kilpatrick*, by S. N. Miller.
- London in Roman Times: *London Museum Catalogues*: no. 3.
- Mancetter: *Excavations at Mancetter, 1927*, by B. H. St. J. O'Neil, *Birmingham Archaeological Society Transactions*, 1928.
- Newstead: *A Roman Frontier Post and its People: The Fort at Newstead*, by J. Curle.
- Richborough: *First, Second, and Third Reports on the Excavations of the Roman Fort at Richborough, Kent*, by J. P. Bushe-Fox, *Reports of the Research Committee of the Society of Antiquaries of London*.
- Throp: *Excavations on the Line of the Roman Wall*, by F. G. Simpson, etc. *C. & W.*, xiii.
- Tullie House: *Catalogue of the Roman Pottery in the Museum, Tullie House, Carlisle*, by Thomas May and Linnaeus A. Hope. *C. & W.*, xvii.
- Verulamium: *Verulamium: A Belgic and Two Roman Cities*, by R. E. M. Wheeler and T. V. Wheeler, *Report of the Research Committee of the Society of Antiquaries of London*.
- Verulamium Theatre: *The Roman Theatre at Verulamium, St. Albans*, by Kathleen M. Kenyon, *Archaeologia*, lxxxiv.
- Wroxeter: *First, Second, and Third Reports on the Excavations on Site of the Roman Town at Wroxeter, Shropshire*, by J. P. Bushe-Fox, *Reports of the Research Committee of the Society of Antiquaries of London*.

Fig. 9, nos. 1-6:

From levels prior to period I of both buildings (for Samian see fig. 4).

1. E. room of Hall. Jar, light grey ware. Ten examples of jars with short vertical necks and rim rolled over, as in this and the next example, occurred in the levels prior to the building, but none was found in those contemporary with the building. Fairly near Caerleon, fig. 21, 64, c. A.D. 80.
2. As last. Jar, light grey ware. Cf. Richborough III, 265, A.D. 75-100, the general type being common in the late first-century levels there; Kilpatrick, pl. xxi, 14, is fairly near, but the general type does not appear to be very common in the north.
3. In eastern courtyard. Cooking-pot, black ware, polished above. Trellis pattern on neck. Two examples with this early cavetto rim occurred in this level, and also five in the deep pit north of the Hall (fig. 9, 7-13). Cf. Brecon, fig. 95, c. 10, A.D. 100-120.
4. East room of Hall. Dish, hard light grey ware. This type of dish, with slightly curved sides is quite different from the straight-sided dishes of black ware of the second century. Cf. Newstead, pl. XLVI, 32, Flavian; Richborough I, pl. xxvii, 87, second half of first century.
5. East room of Hall. Reeded rim bowl, light pinkish brown ware. This form, with oblique angle between rim and wall, is not early, but the rim has not the heavy shape of the latest examples, and the type in any case died out by the Antonine period. Cf. Corbridge, *Arch. Ael.*, viii, fig. 5, 5, A.D. 90-110. The general angle is similar to the Gellygaer group, pl. x, 1 and 2, Trajan-Hadrian.
6. In eastern courtyard. Two-handled jar, hard light red ware, surface fired slightly brown. Cf. Caerleon, fig. 23, 22, A.D. 90-120.

These examples do not constitute a group, since they come from a number of different places on the site, and serve to illustrate the date of occupation prior to the building. None of the forms appears to be earlier than the Flavian period, and the cavetto rim, 3, and the reeded rim, 5, probably go down to the beginning of the second century.

Fig. 9, nos. 7-13:

From the filling of the deep pit or well, north of the Hall (see section 2, pl. LXIX). This was sealed by the level contemporary with the Hall, which had sagged badly into it. The filling may therefore be contemporary with the Hall, or slightly earlier.

7. Cooking-pot, dark grey ware, slightly polished on shoulder and rim. Six examples of this neck-rim type came from the next group, period I. Cf. Newstead, pl. XLVIII, 48, Antonine; Appletree Turret, xvii, 85, period I b, Antonine; Hardknot, fig. 7, 74, beginning of second century; Brecon, fig. 96, c. 25, A.D. 75-120, except that this has a wavy pattern on the neck. The general type of neck-rim jars occurs in the Antonine period, cf. Newstead and Corbridge. It appears, however, to start in the Trajanic period, cf. Hardknot, and also is common at Brecon, *pre* 110-120.
8. Small cooking-pot or beaker, with pronounced bead rim, grey-brown ware, black slip inside.
9. Cooking-pot, grey ware, with reddish slip above outside and over the rim inside. Only one example with bead rim occurred in this pit filling. Cf. Corbridge, *Arch. Ael.*, 3rd ser., viii, pl. xii, 62, Antonine. Similar bead rims, sometimes developing into

small oblique rims, are common in the Antonine levels at Corbridge. They occur in the Hadrianic levels on the Wall, but seem to be commoner in the Antonine levels. Two examples from Hardknot, Trajanic, seem to belong to very straight-sided jars.

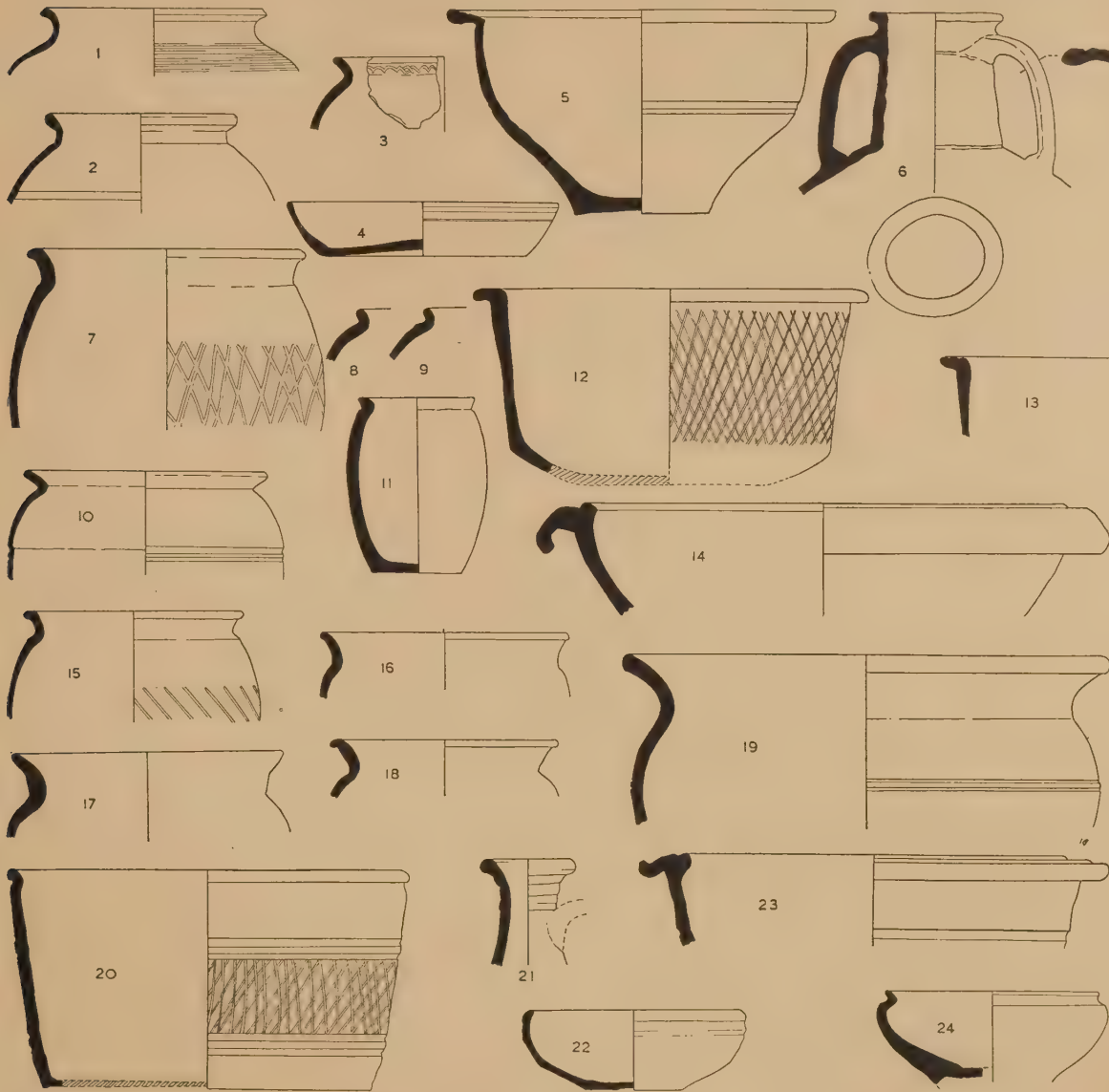


Fig. 9. Coarse Pottery ($\frac{1}{4}$)

10. Beaker with high everted rim. Six examples occurred in this filling, and six also in filling contemporary with the Hall. This type does not occur in any of the Antonine levels in the north, but is common there in the Flavian ones. At Brecon it is largely superseded by the cavetto and similar types during the period A.D. 80-120.
11. Small beaker, grey ware, polished outside, cf. Verulamium, fig. 28, 16, A.D. 160-190.

12. Deep pie-dish, grey ware. Pie-dish rims also occur in the levels prior to period I from which the last group came. Cf. Ambleside, fig. 13, 3; Brecon, fig. 98, 39, where the chamfer is said to be a pre-Antonine feature. In the Antonine group at Corbridge, pl. XII, only a very short chamfer near the base appears.
13. Reeded-rim bowl, grey ware. The oblique junction of rim and wall is a comparatively late feature. The type dies out before the middle of the second century, and is not found in the Antonine levels on the Roman Wall, etc. No reeded rims were found in the levels actually contemporary with period I, but this may be accidental.

This group would appear to date from the second quarter of the second century. It includes few first-century forms. Some of the forms occur in Antonine levels in the north, but not exclusively so, and could date to the Hadrianic period. In the same filling were three coins, a base *denarius* of Trajan, c. A.D. 100 (M. & S., 38), worn, a *sestertius* of Hadrian, A.D. 117-18, illegible, worn, and an illegible 2Æ of the late first or early second century.

Fig. 9, nos. 14-24 :

Period I (for Samian, see fig. 4).

14. East courtyard, just east of room 17, make-up contemporary with period I of Southern Building. Mortarium. Buff ware. Fairly near Birdoswald, pl. xvi, 2, second half second century, but in this the bead is not square; Kilpatrick, pl. xix, has a similar square bead, but this higher; our example is probably later than the Hardknot group, which is pre-Hadrianic; Kanovium, fig. 27, 75, probably second century.
15. Foundation trench of northern wall of Hall. Cooking-pot, grey ware, thin reddish slip, on shoulder and rim, showing also in the strokes of the lattice work. Two other examples of this small cavetto rim came from the same period.
16. North portico of Hall, filling of pit, sealed by first floor contemporary with the walls, but cutting through their building debris (see pp. 183-4 and section 2, pl. LXIX). Black ware polished outside and over rim inside. Cf. Appletree Turret, pl. xvii, 84, second half second century.
17. North portico of Hall, lowest floor contemporary with wall. Cooking-pot, coarse grey ware. One other example of similar profile but less coarse ware occurred in the same level. Cf. Balmuildy, pl. xlv, 14, Antonine.
18. As 17. Cooking-pot, grey ware, polished on shoulder and rim. Three other examples of similar form came from the same level. Cf. Balmuildy, pl. xlv, 17, Antonine; Brecon, fig. 98, 43; Newstead, fig. 28, 8, Antonine; Appletree Turret, pl. xvii, 83, second half second century; Throp, pl. xxvi, 15. The type just appears to be pre-Hadrian, cf. Hardknot, fig. 7, 77. Examples at Viroconium also came from the third layer *post* the Hall (see below).
19. As 16. Wide-mouthed bowl or olla. Pinkish brown ware, grey in centre at break, polished above outside, and over rim inside. Sherds of two other similar bowls occurred in this level. Cf. Balmuildy, pl. xlv, 3, Antonine. The jar, Wroxeter III, pl. xxviii, 78, which is said to be third century, has a very much more overhanging

lip. Caerleon, fig. 20, 41 is a vessel with a lip similar to our example, but the details of the finish are different.

20. North of north portico of Hall, level contemporary with the building. Straight-sided bowl, grey ware, polished outside. Probably influenced by Samian form 30. Birdoswald, pl. xvi, 5, Hadrianic, is probably like this, but has no base.
21. As 17. Ring-neck jug, reddish ware, light buff slip. Cf. Balmuilty, pl. XLIII, 3, Antonine. The top ring is rather more pronounced than Brecon, fig. 98, c. 34, A.D. 100-140. Though the development of the top ring and the weakening of the lower ones suggest a fairly late date, the neck is not as short and concave as most Antonine examples. The rim is distinctly more everted than the Flavian long-necked types.
22. East room, level contemporary with east wall of Hall. Small bowl, light pinkish-brown ware, some lines of polish. Cf. Wroxeter I, fig. 17, 15, first half second century.
23. As 17. Reeded rim bowl, grey ware firing red at surface, grey slip. The rim is unusually wide and heavy. The downward inclination of the rim is an early characteristic. Fairly near Caerleon, fig. 19, 12, late first century, and to Corbridge, fig. 5, 6, A.D. 90-110.
24. As 17. Small bowl, base broken, light brown polished ware.

This group probably dates from the Hadrian-early Antonine period. Many of the examples have analogies with the Antonine forms at Newstead and Corbridge, etc., but these do not include the later forms on the sites. The cavetto rims there, for instance, though they do not reach the stage of overhanging the edge of the pot, tend to be more curved than the Viroconium period I examples. In the period I levels, too, there are no mortarium rims of the early hammer-head type, nor any sherds of Castor ware, as at Newstead. From the same level came the Samian, fig. 4, of which two sherds can be assigned to the Antonine period and two to the Hadrian-Antonine, together with a number of sherds of Flavian, Trajanic, and Hadrianic date. The coins associated with this period were an illegible 2Æ (? Claudius I) and an *As* of Trajan, A.D. 114-117 (M. & S. 648), worn.

North of the Hall were a number of layers subsequent to that contemporary with the building (see section 2, pl. LXIX), which could not be directly related to any of its structural phases. Immediately on the surface was a burnt layer which contained a *sestertius* of Hadrian, A.D. 120-123, illegible, very worn, fragments of a bead-rim pot, cf. fig. 10, 7, four pie-dish rims, cf. fig. 10, 5, and two plain-rimmed dishes.

Fig. 10, nos. 1-5:

Second Layer *post* Hall. Above the burnt layer was a clean filling levelling up the sinkage above the deep pit. In it were the following sherds:

1. Cooking-pot with cavetto rim, grey ware, slightly polished. Near Appletree Turret, period I a, Hadrianic, pl. xvii, 59, but the latter is slightly more curved. Four other cavetto rims occurred, all rather less strongly curved. There were also four neck rims of the general type of fig. 9, 18.
2. Unguent bottle, pinkish-brown ware. Small hole in the base. Cf. Balmuilty, pl. xxxviii, 7, Antonine; Throp, pl. xxvi, 6, end second century, but that has

a slightly out-turned rim, and base not so thick; those from Tullie House have moulded rims.

3. Ring-neck jug, buff ware. The thickened top ring is a late characteristic.
4. Toy dish, creamy buff ware.

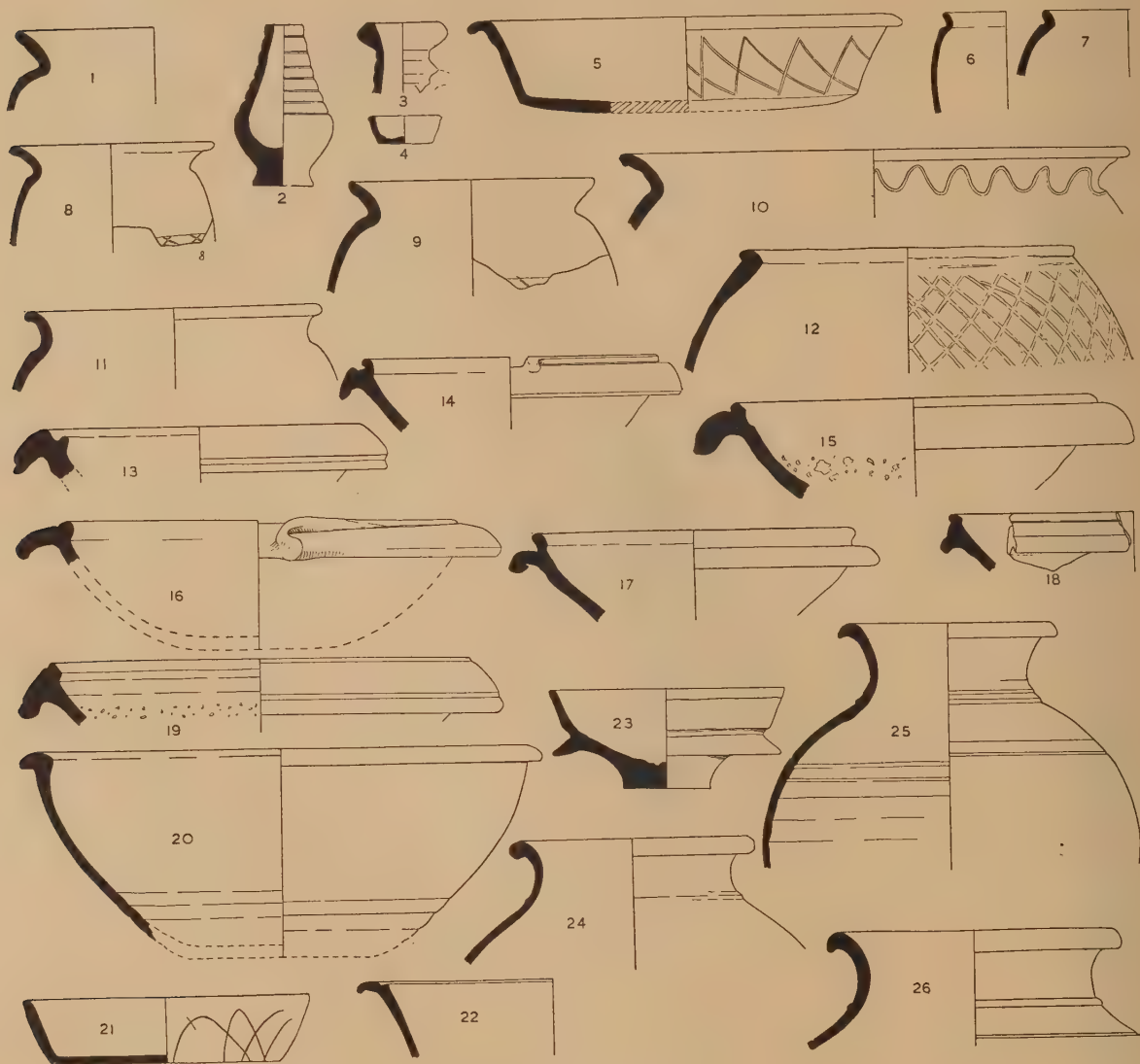


Fig. 10. Coarse Pottery ($\frac{1}{4}$)

5. Pie-dish, grey polished ware. Similar dishes occurred in the first layer of this filling, and there were seven other examples in this layer, all with approximately the same angle and type of rim. Dishes of this type of rim continued well into the Antonine period, cf. Corbridge, pl. xii, 76-80, as well as the heavy triangular rim, *ibid.*, pl. xii, 81, which is typically Antonine.

There is nothing in this group which is distinctively later than that of period I. It probably dates about the middle of the second century.

Fig. 10, nos. 6-26:

Third Layer *post* Hall. A thick light coloured filling, of which the surface has mainly disappeared, except at the north end, where it is overlain by the tail of a road (for Samian see fig. 5).

6. Small cooking-pot or beaker, red brown ware, firing grey, black slip inside and out, polished outside. Near Corbridge, pl. xii, 61, a common Antonine type; this type seems to appear in the Trajanic period, cf. Hardknot, fig. 7, 82, but these examples tend to have very straight sides.
7. Small cooking-pot or beaker, grey brown ware, black slip inside and out, polished outside and on rim inside. Three other examples occurred in this level, and four close to fig. 9, 10. Cf. Brecon, fig. 98, c. 41, A.D. 100-140.
8. Cooking-pot, grey ware, polished on shoulder and rim. The rim of this example is more overhanging than any of the Balmuilty Antonine examples.
9. Cooking-pot, grey ware, rim and shoulder partially covered by reddish-brown slip. A very similar example occurred in the second layer, and three other examples in this layer. Cf. Appletree Turret, pl. xvii, 76, period I b, Antonine; this type does not seem to occur there in period I a, Hadrianic.
10. Wide-mouthed cooking-pot, black ware, slightly polished outside and on rim. The wavy pattern on the neck is usually a pre-Antonine feature, but the overhang of the rim suggests a fairly late date. It is more pronounced than the Appletree Turret I b examples of Antonine date.
11. Cooking-pot, dark grey ware, polished outside and on rim. Twelve other examples of approximately this type occurred in this level. Cf. Corbridge, pl. xii, 46, which is the common cooking-pot in the Antonine levels.
12. Cooking-pot, rather coarse and heavy. Black ware. Cf. Kirkpatrick, pl. xxi, 24, Antonine.
13. From an area which may have included some of period I. Mortarium, red-brown ware. Cf. Ambleside, *C. & W.*, xv, fig. 22, 27; Wroxeter, Type 78, A.D. 80-120.
14. Mortarium, buff ware. This type does not occur in the Antonine levels at Corbridge or Kilpatrick.
15. Mortarium, light buff ware.
16. Mortarium, buff ware. Cf. Balmuilty, pl. xli, 17, Antonine.
17. Mortarium, grey ware. Cf. Verulamium Theatre, fig. 10, 10, period III, end second century. The flange is less square than the fourth-century type, *ibid.*, fig. 11, 29.
18. Mortarium, buff ware. This approaches Ambleside, *C. & W.*, xv, fig. 22, 24, late third century, but is considerably smaller.
19. Mortarium, buff ware. Cf. Corbridge, *Arch. Ael.*, viii, 105, Antonine; Caerleon, cf. fig. 23, 76, c. A.D. 200.
20. Bowl, red-brown ware, polished on upper half outside and on rim. Bowls of this type were common, twelve similar ones being found, all in the same ware. Slightly like Balmuilty, pl. xlvi, 24, Antonine.

21. Dish, black ware. Scratched pattern of interlocking circles on base as well as on sides. Six other sherds of straight-sided dishes were found.
22. Straight-sided bowl or deep dish, grey ware, firing red-brown in parts. This type of rim, with an incipient flange seems to appear later than the pie-dish rim. Cf. Kilpatrick, pl. xxiii, 12, Antonine; near Balmuildy, pl. xlvii, 26.
23. Small flanged bowl or lid, red-brown ware. Fairly near Tullie House, pl. xiii, 173, but our example has a base smaller in proportion, and the grooves are not present in the Tullie House example, which is of a peculiar local clay.
24. Narrow-necked jar, pinkish-brown ware, grey in centre of break, surface much pitted. Jars of this type of neck, sometimes with rim slightly more triangular in section, were very common, twenty-one examples occurring in this level. The ware was all similar. In the earlier examples of this type, which ultimately derives from the Belgic cordoned jar, the rim does not appear to be thickened, cf. Brecon, fig. 95, 6, c. A.D. 100-120. With our present example should be compared those of period V, see fig. 9, 19.
25. From area including some of period I. Narrow-necked jar, pinkish-brown ware, with a few rather deep lines of polishing on neck. This type, with undercut rim, was less common than 24, only seven examples occurring.
26. Narrow-necked jar, pinkish brown ware. Cf. Kilpatrick, pl. xx, 6; Balmuildy, pl. xlv, 1, Antonine, is very similar; there is a similar neck and rim at Newstead, pl. L, 8, but without the cordons; Mancetter, pl. xxiv, 7, A.D. 80-110.

In addition, twenty pie-dish rims were found, similar to fig. 2, 5; the heavy triangular shape of the Antonine form at Corbridge, pl. xii, 81, does not seem to occur; two fragments of ring-neck jugs, with very heavy top rims; one mug, cf. Wroxeter I, fig. 18, 40.

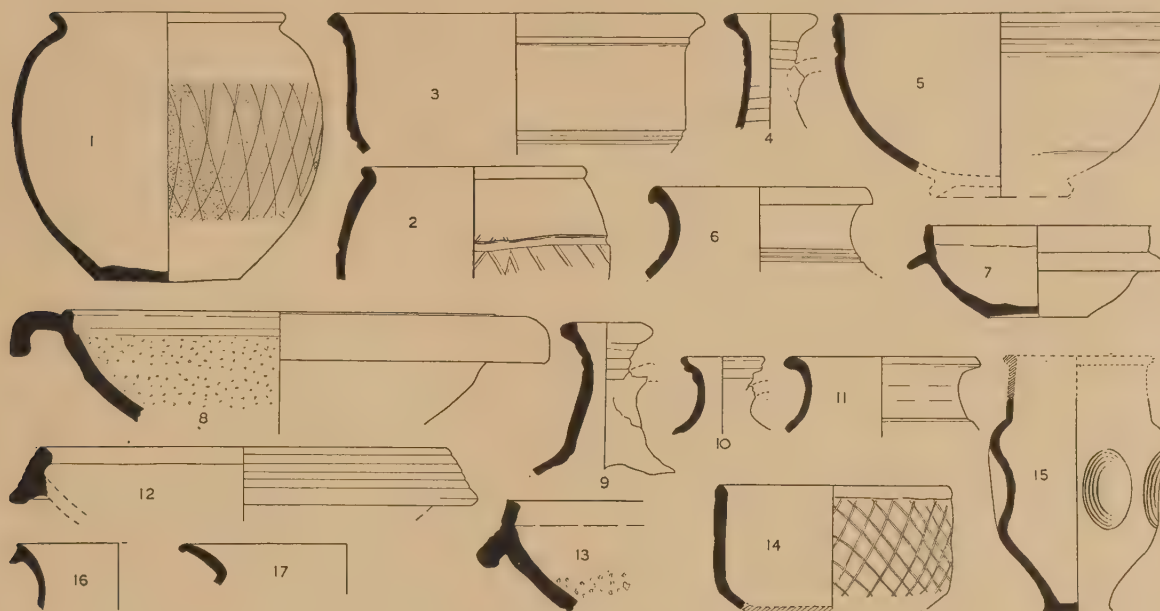
The date of this group is probably late second to early third century. The forms almost all find their parallels among the Antonine groups in the north. The hammer-headed mortaria, of which two examples were found, only just begin to appear before the close of the Antonine occupation of Scotland. Fig. 10, 17 is also not much earlier than A.D. 200. Some of the cavetto rims too are late. From the same level came the Samian, fig. 5, which is almost entirely Antonine. Finally, the only coin in the filling was a *denarius* of Caracalla, A.D. 207 (M. & S. 89), in fairly good condition. On the other hand, it should be noted that no Castor ware was found in this level. This probably means that Castor was introduced later into the west than the north and east, as it is probable that on a number of sites it appears in the late Antonine periods.

Fig. II, nos. 1-6:

Period II. Group in east courtyard, in layer contemporary with the east room and immediately adjoining it.

1. Cooking-pot, black ware, polished outside where there is no trellis pattern and over rim inside. A similar rim occurs at Birdoswald Turret, pl. xvi, 15, but the pot is more globular; very near Brecon, fig. 98, 41, A.D. 100-140; Corbridge, pl. xii, 62, Antonine, the general type being quite common in the Antonine levels; Balmuildy, pl. xlv, 1, Antonine.

2. Cooking-pot, black ware, polished outside on shoulder and rim. Cf. Balmuildy, XLVI, 3, Antonine; fairly near Appletree Turret, xvii, 88, period Ib, second half second century, and Corbridge, pl. xii, 60. The only examples of bead-rim from Hardknot (Trajan) belong to much more straight-sided pots, and no examples are shown from Appletree Turret, period Ia, Hadrian.
3. Bowl, pinkish ware. This type may be connected with the reeded rim type. Near

Fig. 11. Coarse Pottery ($\frac{1}{4}$)

Appletree Turret, pl. xvii, 63, second half second century, except that the latter has a double moulding at the rim.

4. Ring-neck jug, red ware, creamy buff slip. Though the neck of this example is rather straight and high, the wide-spreading lip distinguishes it from the first-century type.
5. Bowl, pinkish ware, grey in centre of break, imitation Samian form 37. Such imitations are common in the second century, cf. Kanovium, fig. 30, 44-8, from A.D. 80-130.
6. Narrow-necked jar, light reddish ware, polished outside.

The group is probably about mid-second century in date, and not much later than period I.

Fig. 11, nos. 7-11:

Period III. From the foundation trenches and levels contemporary with the extension south of the east room of the Hall.

7. Small flanged bowl, light pinkish brown ware. Cf. Newstead, pl. LI, 10, Antonine; Tullie House, pl. XIII, 172; Verulamium, fig. 27, 11, A.D. 160-190, in which group it was common.

8. Mortarium, pinkish buff ware. Cf. Balmildy, pl. XLII, 36, Antonine; High House, Turret, pl. XVI, 22, Antonine.
9. Ring-neck jug, light red ware, creamy slip. Near Newstead, fig. 33, 8, possibly Hadrianic.
10. Ring-neck jug of late form, pink ware, rather gritty. Fairly near Corbridge, fig. 8, 95, second half second century, and Newstead, fig. 33, 10, unstratified.
11. Narrow-necked jug, grey ware, slightly polished outside and on lip inside. Cf. Brecon, fig. 96, 22, A.D. 75-120.

This group again does not contain anything very late, the latest probably being the ring-neck jug, no. 10. With it was a 2 *Æ* of Sabina, A.D. 119-138 (M. & S. Hadrian 1024), while from a level possibly but not certainly contemporary with it came a *denarius* of Septimius Severus, A.D. 194 (M. & S. 447) and a *denarius* of Caracalla A.D. 206-210 (M. & S. 176), all in good condition. No Castor ware came from the level, so it probably does not go far into the third century.

Fig. 11, nos. 12-17:

Period IV. From levels crossing top of walls of small room in angle of east room, sealed by the white floors.

12. White floors in east room. Mortarium, reeded hammer-head type, buff ware. Cf. Verulamium Theatre, fig. 10, 13, late third century; Kanovium, fig. 27, 92, third to fourth centuries.
13. As last. Mortarium, reeded hammer-head type, light buff ware. This type may be intermediate between the late second-century flanged type and the true hammer-head type. Fairly near Wroxeter I, 186, and third century to beginning of fourth; Kilpatrick, pl. XIX, 30, A.D. 140-180, where the only example approaching the hammer-head type has similar angle.
14. From the layer overlying period IV of southern building, immediately south of room 12, and not necessarily contemporary with period V of Hall. Dish, black, rather gritty ware, polished where not decorated with trellis pattern.
15. Castor thumb-pot, thin white ware with light brown slip. A large number of such thumb-pots, or folded beakers, occurred in the road drain adjoining the Verulamium Forum, of late third-century date (*Antiq. Journ.*, xvii, 49, note). Sherds of another Castor pot occurred in the same level as our thumb-pot. The base was of similar form, and it was decorated with barbotine scrolls covered by the same slip as the rest of the pot. The ware was thin and white, with a light brown slip with reddish patches.
16. As last. Narrow-necked jar, light red ware. Five similar rims occurred at this level, and their sharp profile and undercut rim contrasted strongly with the numerous examples from the second-century levels, cf. fig. 10, 25.
17. From the chalky white floors, second group of repairs to the nave. Cavetto rim of cooking-pot, black ware, polished. Two other sherds of similar rims occurred in this level. Cf. Appletree Turret, pl. XVII, 92, period II, third century; Richborough III, 321, fourth century.

This group probably dates from the second half of the third century. In contrast to the late second-century groups, it contains a considerable quantity of small sherds of Castor and Rhenish ware. The Castor is not very late, the base illustrated, for instance, being broad and low, and the sherds of thin ware, usually pinkish or orange, and often decorated *en barbotine*. No examples of the thick white Castor were found. The narrow-necked jars, also, contrast with the earlier groups, and the mortaria seem to be distinctly later. It is, therefore, improbable that the group belongs to the beginning of the third century. The coins do not help, consisting as they do of a barbarous 2Æ of Claudius I,

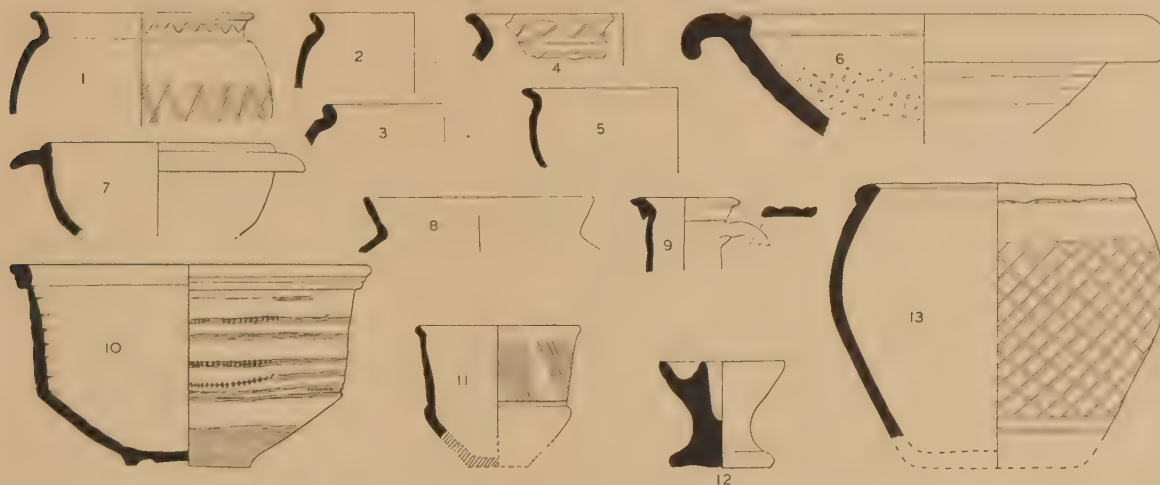


Fig. 12. Coarse Pottery ($\frac{1}{4}$)

worn, a *sestertius* of Lucilla (M. & S. Marcus Aurelius 1746) and a *denarius* of Commodus, A.D. 191-192 (M. & S. 251), the last two rather worn. In a pit cutting through the floors, sealed by the debris which is tentatively dated *c.* A.D. 300, was an *antoninianus* of Tetricus II, A.D. 270-273 (M. & S. 270) in good condition.

Fig. 12, nos. 1-9:

Cuts through east defences.

Southernmost cut, in Golden Furlong field. The original turf line can be clearly traced, overlain by the early turf-revetted rampart. The tail of this rampart is overlain by a secondary turf line, which had formed prior to the building of the later wall and bank (section A, pl. Lxx).

1. In the secondary turf, prior to second period of defences. Rim of cooking-pot, grey ware, polished outside and on rim. Cf. Brecon, fig. 95, c. 8, *c.* A.D. 100-120). The general type is not found in the Newstead and Corbridge Domitian-Hadrian levels, and is less heavy than the usual Antonine examples, e.g. Balmuildy, pl. XLV, 1-23.
2. In tail of original bank, beneath secondary turf, prior to second period of defences. Rim cooking-pot, grey ware, polished outside and on rim inside. Cf. Balmuildy, pl. XLVI, Antonine; Brecon, fig. 98, c. 41, *c.* A.D. 100-120.
3. In original bank. Rim of cooking-pot, sandy brown ware, firing grey at surface. The type appears in the Trajanic period, cf. Hardknot, fig. 7, 82, where, however,

the examples appear to be more straight-sided, and continues into the Antonine period, Corbridge, pl. xii, 61.

4. As 2. Rim of cooking-pot, black ware, slightly polished. Cf. Hardknot, fig. 7, 77, Trajan.
5. Beneath original turf, prior to earliest defences. Bowl, light red ware.

Cut (section C, pl. Lxx), north of farm lane, from filling of inner early ditch, prior to building of later wall.

6. On original turf, prior to earliest defences. Mortarium, orange-buff ware. An exactly similar form came from beneath the secondary turf. Cf. Brecon, fig. 99, 49, early second century; the general type with the flange slightly above the bead occurs at Gellygaer, Trajan-Hadrian, though there is no example of exactly this form; Wroxeter I, 46.
7. Bowl, light red ware, very worn. Cf. Wroxeter I, fig. 17, 16, A.D. 80-120; Brecon, fig. 98 c. 35, Trajan-Hadrian. The type with a thinnish flange immediately below the rim is common at end of first to beginning of second century.
8. Jar, light red ware, gritty, blackened on outside. Cf. Balmuldy, pl. xlv, 9, Antonine; Kilpatrick, pl. xxi, 5, probably early second century.
9. Neck of flagon, light red ware, worn. Cf. Caerleon, fig. 21, 48-50, Flavian-Trajan.

These sherds would indicate a date in the last decade of the first century, or the beginning of the second century for the earliest rampart. Associated with them were a few sherds of first century Samian (see p. 177) and a coin of Claudius I (illegible). For the accumulation subsequent to the first period, but prior to the second, the sherds illustrated give a date during the first half of the second century. The sherds from the filling of the early ditch indicate from their worn condition that they had not just been deposited; they probably come from the original bank, which was thrown forward into the ditch when the later wall was built.

Fig. 12, nos. 10-13:

Miscellaneous Pottery.

10. Hall, unstratified. Carinated bowl, red brown ware, light buff slip above outside. The slip has been removed by a rouletting wheel, so as to form bands of decoration on the upper half. This is an imitation Samian form 29, the shape being quite common in the late first century to first half second century. Cf. Verulamium, fig. 31, 36-7, A.D. 120-160; Wroxeter I, fig. 17, 7, A.D. 80-120.
11. Dump, eastern defences, centre cut. Small bowl, soapy brown ware. Cf. Wroxeter I, fig. 17, 19, and 20, A.D. 80-120.
12. Cut through early north defences (section, pl. Lxx). Earth overlying tail of early bank. Candlestick, red brown ware, grey in centre of break. Blackened by smoke in socket, and patch of smoke on rim. With pottery of first half of second century. Cf. Corbridge, pl. xii, 74, Antonine.
13. In make-up of road at the back of, and later than, the early north rampart. Cooking-pot, very coarse gritty black ware, probably hand-made. Fragments of a second pot were also found. A rather similar rough pot occurred in a Claudian level at Verulamium, fig. 34, 55.

Fig. 13.

Medieval.

In debris over hypocaust of room 3 of southern building. Small medieval pipkin. This was the only medieval sherd found on the site. Mr. G. C. Dunning, F.S.A., has supplied the following note :

Pipkin of hard sandy buff ware, with large splashes of glossy, bright green glaze. The glaze is mainly on the shoulder and partly on the rim, and also across the upper side of the lug handle. The rim has a pinched-out lip for pouring, made not quite at right angles to the handle.

Pipkins have seldom been found in association with dated material, so that only a few parallels can be quoted. The closest, in regard to proportions, angular rim, and sagging base, is from the very productive pottery kilns at Rye;¹ this vessel is, however, provided with three tall legs in imitation of a bronze skillet. The bulk of the pottery from Rye belongs to the second half of the thirteenth century, with possible extension into the early fourteenth century. Only one other dated pipkin is at all comparable with the Wroxeter example: this is from the pottery kiln at Cheam,² of which the products are almost certainly fifteenth century by comparison with the pottery from Bodiam Castle (built in 1386).³ The Cheam pipkin lacks the full medieval character of the Rye pipkin; it is wheel-turned with more precision, the profile is more sharply angular, and the base is flat and glazed inside.

The available evidence, then, suggests the thirteenth century as the most probable date for the Wroxeter pipkin, with the possibility that it may be fourteenth century.



Fig. 13. Medieval Pipkin ($\frac{1}{4}$)

GENERAL REMARKS ON THE POTTERY

As might be expected from its geographical position, the pottery of Viroconium shows connexions both with the north and with the south, being on the whole closer to the north. This is shown most clearly by the mortarium rims of the latest period, mainly unstratified, for in these the hammer-headed mortarium was much the most common, particularly the type with red paint on the rim. The hammer-headed type is not illustrated in the Richborough reports, and is rare at Verulamium, whereas it is common on the Roman Wall sites. On the other hand, the type with a short square flange, well below the rim (Verulamium Theatre, fig. 11, 29), which was very common at Verulamium and Richborough, is also found. Poppy-head beakers, which are so common at Verulamium and Richborough during the second century, are entirely absent. The cooking-pots, with their cavetto and bead rims, are very close to the Roman Wall examples, the type being apparently more common there than in the south.

A further point worth noticing is that it appears that Castor ware, as is natural, reached Viroconium somewhat later than the eastern districts, for it is entirely absent from a level (fig. 11, 7-11) which contained a coin of Caracalla of A.D. 207. On eastern sites

¹ *Sussex Arch. Coll.*, lxxvii, 117, fig. 3, 5.

² *Ibid.*, xxxv, 85, fig. 5.

³ *Ibid.*, lxxvi, 223.

the ware certainly seems to appear by the end of the second century. The deposits, which date down to A.D. 300, contain a good deal of Castor ware, but all of a fairly early type, with broad bases and ware thin, and generally pinkish. This was in contrast to the vessels of thick white ware from the unstratified debris. No imitation Samian was found in the stratified levels, though there was much in the upper levels, but this may be accidental.

Notes on the Mortaria Stamps from Wroxeter

By ERIC B. BIRLEY, F.S.A.

1. Bruscius (two examples, third layer post Hall, on north side, and unstratified). In the north of Britain the potter is attested at Duntocher (*C. I. L.*, vii, 1334, 18) and Mumrills (report, fig. 94, 3) on the Antonine Wall; Newstead (p. 266, 3: *Nat. Mus. Antiq.*, FRA. 1428); Corbridge (two examples, unpublished); Aldborough (*Reliq. Isur.*, pl. xxxiii, cf. *C. I. L.*, vii, 1334, 18). In the south one example has turned up at Gloucester (*Bristol and Gloucs. Arch. Soc.*, lv, 1933, 287-8, and fig. 6, 15), and it is suggested that the grit used on that specimen is a local Lias—if so, we get the origin indicated, and the Wroxeter examples fill part of the gap between manufacturer and northern distribution area. Date: Antonine, A.D. 140-200. It should be noted that there are stamps, said to be 'legionary' ware mortaria, from Caerleon (*Arch. Camb.*, 1932, p. 339, nos. 31, 32-5):]ISC[and]SC[; these cannot be assigned to Bruscius.



Fig. 14. Mortaria Stamps (½)

2. Doinus, unstratified: also at Corbridge (unpublished), Chester (*Arch. Soc. Journ.*, xxvi, 1925, three examples), Wroxeter (1914, no. 49, where a reference to Chesters is to be corrected to Chester); Verulamium (not yet published), London (B.M. Cat. 2829); probably also Colchester (Cat. fig. 7, 8 'MOX' to be read DOINVS, as in the present case). By the normal rim-type and fabric, Vespasian-Trajan seems the best dating; the present example is unusually large and clumsy for this potter.

SMALL FINDS

Fig. 15:

Small objects of metal, bone, etc.

Brooches.

1. Unstratified. Derived from the Swarling type, with a hook to secure the spring, but the hook is here cast in one piece with the bow and is a purely decorative feature, cf. Verulamium, p. 207, 22 and 24, mid-first century and Vespasianic respectively.
2. Low down in filling of pit beneath room at east end of hall. The level above it contains Claudian pottery, see fig. 2. Brooch of the so called 'poor man's' type of the second half of first century. Type with knob at foot is probably not much later than mid-first century. Most of the plain coiled spring is now missing. Cf. Wroxeter III, pl. xv, 1; Richborough II, where full list of parallels is given.



Metal Objects

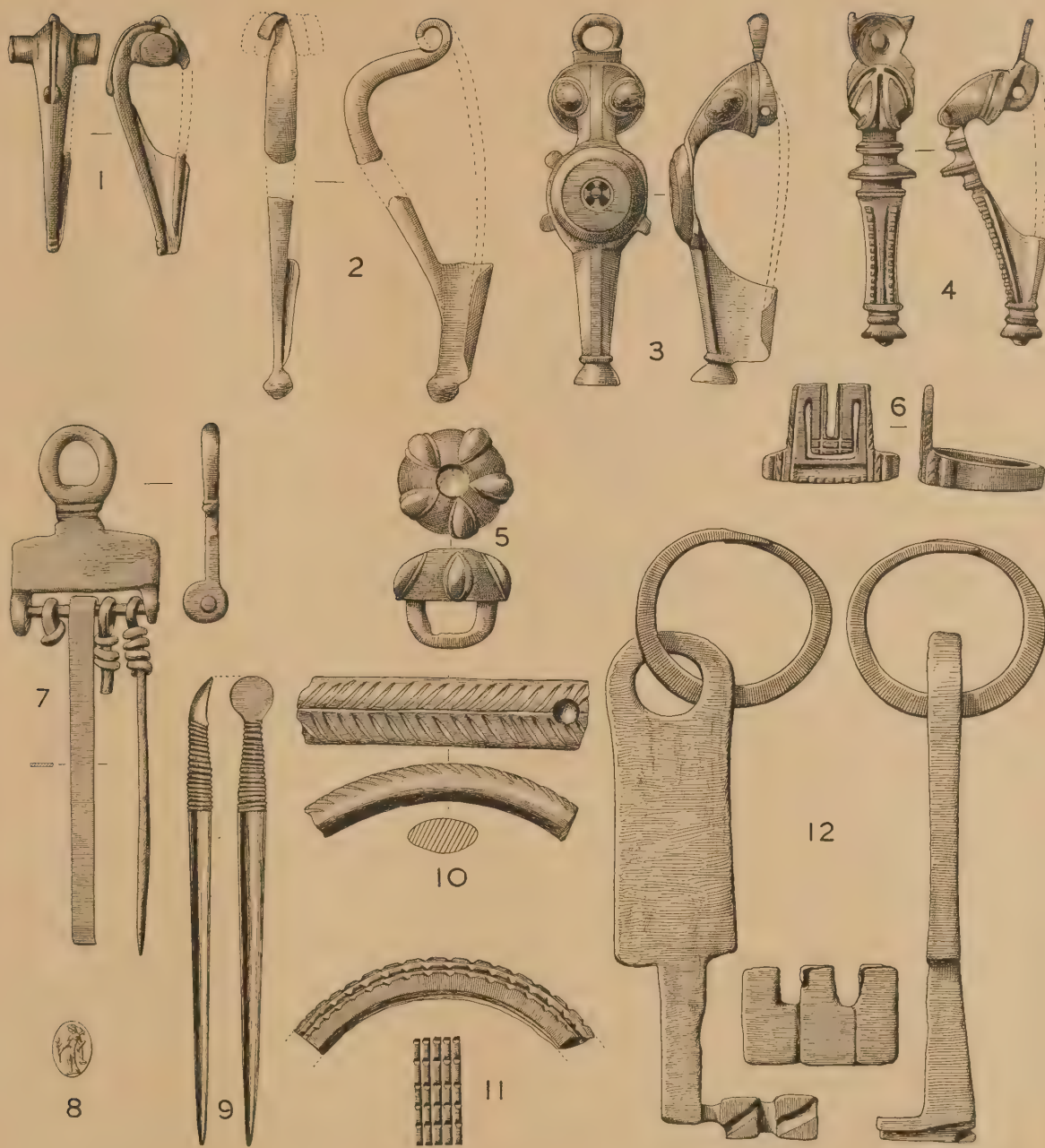


Fig. 15. Brooches and miscellaneous small finds ($\frac{1}{5}$)

Verulamium Report, p. 204, 1 and 2, without knob. Newstead, pl. LXXX, 1, Flavian, foot broken.

3. Beneath floor of portico of hall. Cf. Newstead, pl. LXXXVI, 25, except that that has not projecting knobs on head and centre.
4. Period I. Brooch with trumpet head, a type common in the north of England, but

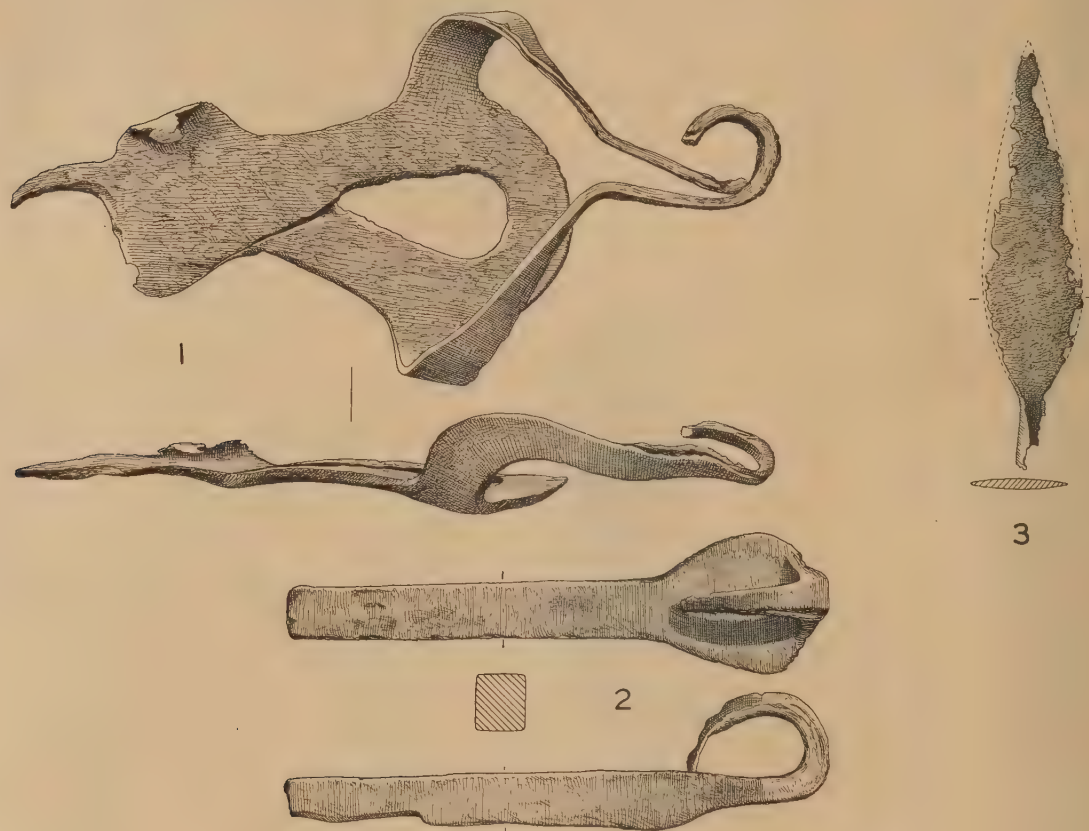


Fig. 16. Hipposandal, linch pin, and spear-head ($\frac{1}{2}$)

rare in the south. Loop for attachment of chain broken. For very similar example, but without the mouldings at the foot, see Wroxeter I, fig. 9, 7, dated A.D. 110-130.

Miscellaneous.

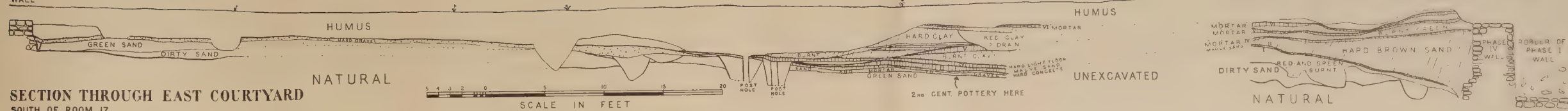
5. Second group of repairs to east end of hall. Bronze ornament.
6. Unstratified. Bronze key ring. Common on Roman sites, cf. Wroxeter II, fig. 5, 20, and references there.
7. Set of bronze toilet implements, on bar, with ring for suspension. Only half the tweezers and a pointed stick, probably for use as an orange stick, survive. A more elaborate example is illustrated in *London in Roman Times*, pl. xxxix.
8. Cornelian ring intaglio. Mercury holding palm branch in one hand. Filling of well (?), north of Hall, below period I surface.

VIROCONIUM PLAN OF CITY



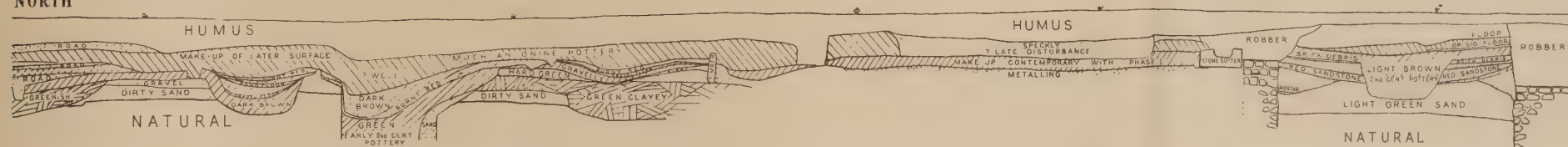
Note:—The cuts on the eastern side of the defences and on the north of the original city are those of the recent excavations, and those on the north side of the second phase of the defences are those of Professor D. Atkinson (published by kind permission)

BOUNDARY WALL



NORTH

SOUTH
NORTH WALL
OF HALL



9. Bone ear-pick.
10. Unstratified. Fragment of shale bracelet. Decorated with incised straight spray.
11. Make-up of relaying of phase V floor of last courtyard, probably fourth century, but incorporating earlier material. Fragment of shale bracelet. Near Verulamium, p. 210, 45, late third century.
12. Unstratified. Iron key. A number of keys of this type was found at Verulamium in second- and third-century filling, *op. cit.*, pp. 219-20, 22-8; Newstead, pl. LXXVII, 13; Brecon, fig. 60, 10, late first century; *London in Roman Times*, pl. xxx, B. 1-8.

Fig. 16.

1. Hipposandal. For discussion of hipposandals and references see Verulamium, p. 220, pl. XLIII, B.
2. Unstratified. Linch pin, of very simple type. Cf. Newstead, LXX, 1.
3. Unstratified. Socketed iron spear-head. Socket probably folded over, but much broken. Cf. Richborough I, p. 48, 37; Brecon, fig. 60, 17.

Plate LXVII.

1. Eastern courtyard, top floor (period VI). Drain-pipe collar.
2. Same area. Drain-pipe collar.
3. Unstratified. Iron clamp. Cf. Kilpatrick, pl. xxv, B. 5.
4. As 1. Rectangular clamp or collar. Broken at both ends. Traces of wood inside and out. This may be something of the same nature as those from Newstead (pl. LXVI, 1, 2, 4), which it is suggested are part of a wagon, but it is smaller.
5. Unstratified. T-clamp. Employed for fastening flue-tiles against a wall. Newstead, pl. LXVII, 1, 2, 3, 4; Balmuildy, pl. LIV, 18.
6. North of portico of hall, in burnt level over period I floor. Iron dividers or compasses. The two arms hinge on a pin. Cf. Wroxeter I, fig. 10, 14; Ambleside, *C. and W.*, pl. xv, fig. 31. A bronze example very similar in shape to ours occurred at Brecon, fig. 58, 13.
7. East room, burnt layer beneath period III floor. T-clamp.
8. Unstratified. Iron nail.
9. Unstratified. T-clamp.
10. North portico, second floor. Iron nail.
11. As 10. Iron clamp.
12. East room, period III. Heavy lead plate. The use of this object is uncertain. It has been attached to wood on the reverse side to that shown in the photograph by nine nails, which were square in section and $\frac{1}{8}$ in. thick. The original shape was approximately as preserved, for the positions of the nail-holes follow the edges. The slight projection in the centre of the upper part is certainly original. The two long edges exhibit some signs of wear. It is possible that it was intended to weight the end of a lever, but no parallels can be found.
13. Eastern courtyard, period IV floor. Fragments of iron drain-pipe collar.
14. Unstratified. Iron tool or weapon. Period of central hall.
15. Eastern courtyard, make-up of top floor, period VI. Lead flashing, probably from

a roof. It has been secured by an inner row of heavy square nails all round, the right hand end being only slightly broken, with an outer row of smaller round nails close to the edge. Tool marks are visible on the inner side.

Notes on the Coins from Wroxeter

By B. H. ST. J. O'NEIL, F.S.A.

The coins in this list comprise all the coins found in the 1936 and 1937 excavations.

The reference numbers are those of M. and S. (Mattingly and Sydenham, *Roman Imperial Coinage*, vols. i-iv), unless otherwise marked. C. = Cohen, *Monnaies frappées sous l'empire romain*, second edition. From the time of Valentinian I onwards reverse types are given to facilitate reference. The name of an emperor in brackets at the beginning of the reference numbers, e.g. Sabina (Hadrian), indicates that the reference numbers are those of coins listed under that emperor. Numbers in square brackets indicate the number of coins of the particular type.

The writer is indebted to Mr. H. Mattingly for assistance in cases of doubt.

<i>Emperor.</i>	<i>Date.</i>	<i>Æ.</i>	<i>Æ.</i>	<i>References.</i>	<i>Total.</i>
	A.D.				
Claudius I	41-54	—	4	66 [including 1 barbarous and 1 semi-barbarous]	4
Domitian	81-96	1	—	79	1
Trajan	98-117	2	2	as 38, 291, 648 + 1 <i>Dupondius</i> illegible	4
Hadrian	117-138	—	4	795 + 3 <i>Sestertii</i> illegible	4
Sabina	—	—	1	(Hadrian), 1024	1
Antoninus Pius	138-161	—	1	967	1
Lucius Verus	Died 169	—	1	(Marcus Aurelius), 1315	1
Lucilla	—	—	1	(Marcus Aurelius), 1746	1
Commodus	180-192	1	—	251	1
First or Second Century	—	—	5	5 2Æ, one ? Claudius I, one possibly Antoninus Pius	5
Septimius Severus	193-211	1	—	447	1
Caracalla	198-217	3	—	89, 120, 175	3
Severus Alexander	222-235	1	—	C. 187.	1

All Antoniniani

<i>Emperor.</i>	<i>Date.</i>	<i>References.</i>	<i>Total.</i>
	A.D.		
Claudius II	270	261/2	1
Victorinus	268-270	71, 114 ($\frac{*}{—}$)	2
Tetricus I	270-273	57, 90, ? 122	3
Tetricus II	270-273	254 or 258 [2], 267, 270	4
Carausius	287-293	101 ($\frac{F}{ML} \frac{0}{—}$), 878 or 880 (illeg.) + one illegible	3
Radiate Crown	253-296	Probably Victorinus	1
Barbarous Radiates		1 ? Tetricus I type 3	4

All Æ

<i>Emperor.</i>	<i>Date.</i>	<i>References.</i>	<i>Total.</i>
	A.D.		
Constantine I	330-337	C. 18 ($\overline{\text{PTR.}}$), 20 ($\overline{\text{TRV}}$), 508 ($\overline{\text{PTR}}$), 695 ($\overline{\text{TR}}$)	4
Constantinopolis	330-337	C. 21/22 ($\overline{\text{TRS.}}$), ($\overline{\text{TR.S}}$)	2
Theodora		C. 4 ($\overline{\text{TRP}}$)	1
Constantine II	317-340	C. 114 illegible	1
Constantius II	324-361	C. 93 ($\overline{\text{TRP}}$)	1
Constans	333-350	C. 54 ($\overline{\text{M}}$), 179 ($\overline{\text{N}}$)	2
House of Constantine	335-342	<i>Gloria Exercitus</i> , One Standard ($\overline{\text{TRP}}$)	1
Valentinian I	364-375	<i>Securitas Reipublicae</i> ($\overline{\text{OF III}}$)	1
Valens	364-378	<i>Gloria Romanorum</i> ($\overline{\text{OF III}}$), ($\overline{\text{CON.}}$), ($\overline{\text{SMAQP}}$), <i>Securitas Reipublicae</i> ($\overline{\text{OF I}}$), ($\overline{\text{LVGP}}$), ($\overline{\text{SM RB}}$), ($\overline{\text{OF III}}$) + 1 illegible	6
Gratian	367-383	<i>Gloria Novi Saeculi</i> ($\overline{\text{CON}}$)	1
House of Valentinian I	364-383	<i>Gloria Romanorum</i> , 1 illegible <i>Securitas Reipublicae</i> , 1 illegible	2
Illegible		Third or fourth century small Æ	3
		Total	71

*Report on Infant Burial*¹

By Dr. A. J. E. CAVE, Royal College of Surgeons

The burial comprises the incomplete skeleton of an infant perhaps six or nine months old, and certainly not more than one year old. Its sex cannot be determined.

Skull: the alisphenoids are separate. The anterior fontanelle is patent.

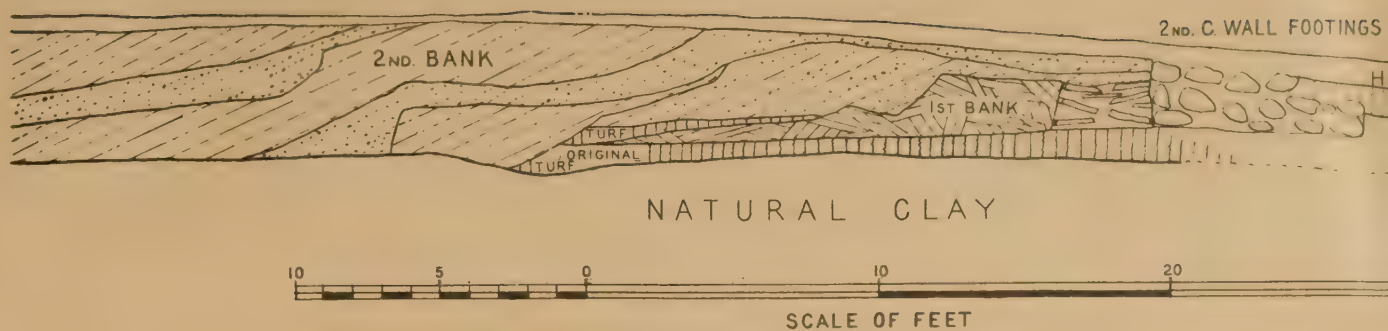
The unerupted members of the milk dentition present include three incisors and eight molars.

Vertebral Column: none of the neural arches have as yet begun to unite mid-dorsally.

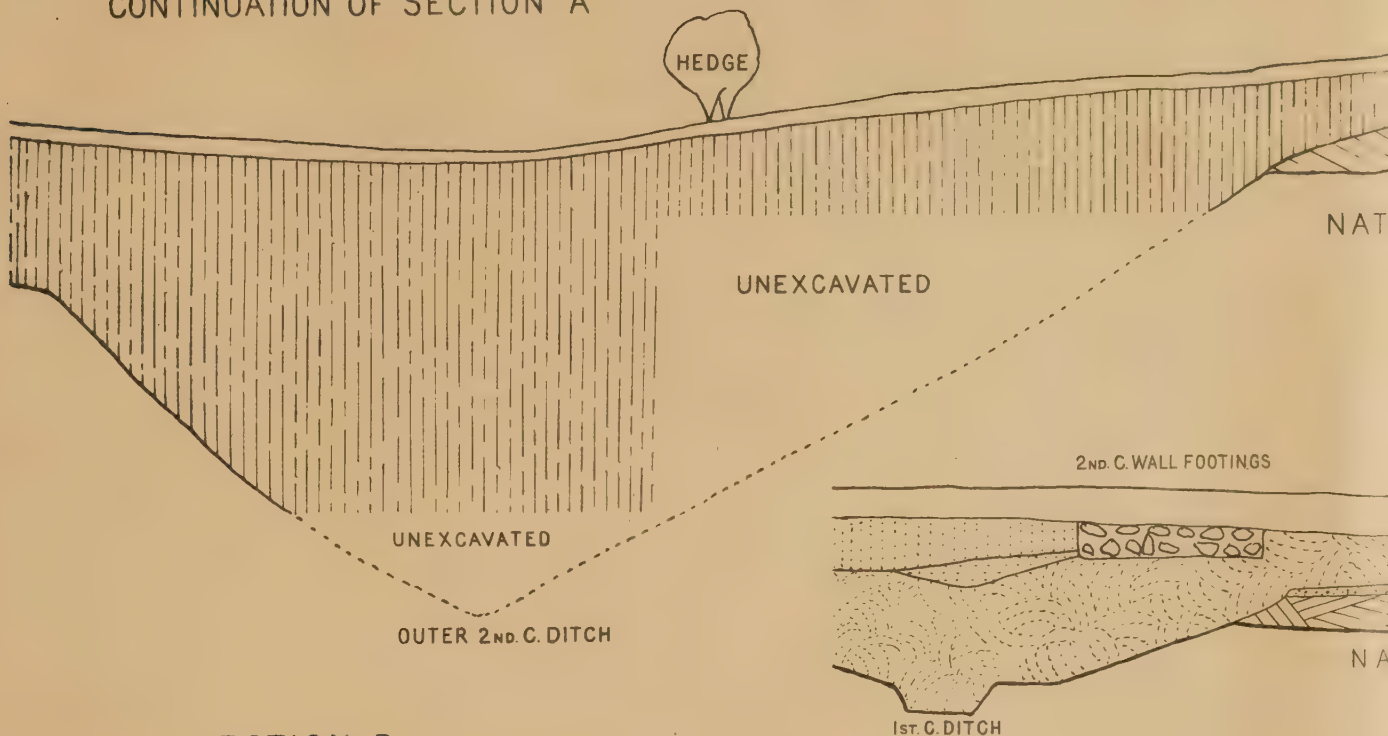
The bones present reveal no signs of ante-mortem injury or disease and indeed present no unusual features.

¹ See p. 188.

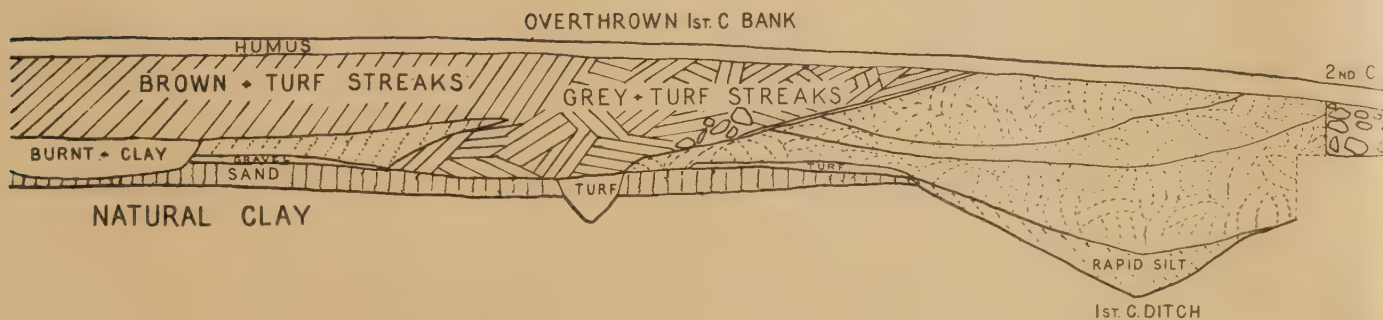
SECTION A



CONTINUATION OF SECTION A

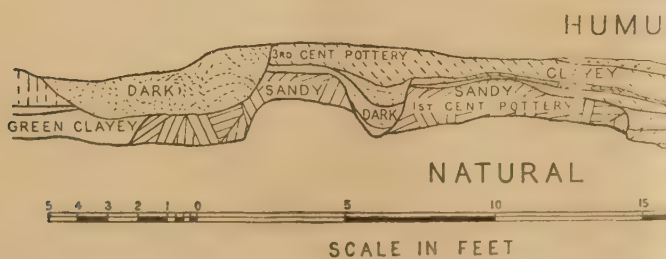


SECTION B



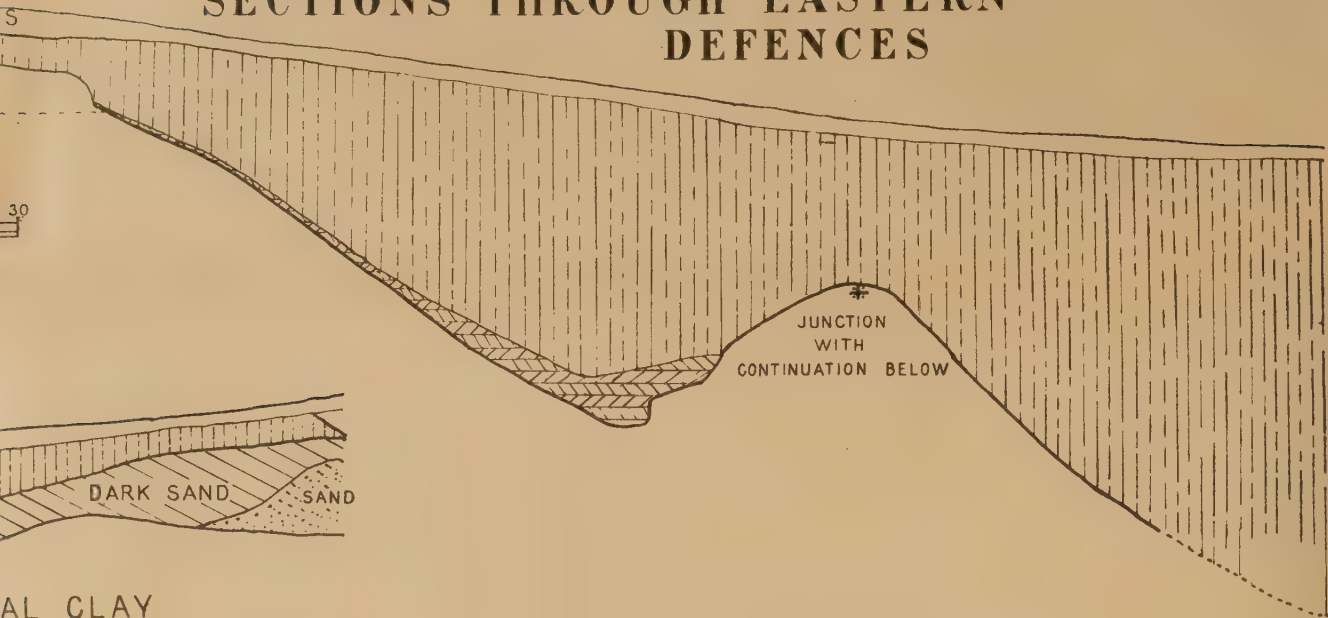
Section A is the southern cut on pl. LXVIII; B

POSSIBLE LINE OF 1st. CENT. NORTH SOUTH

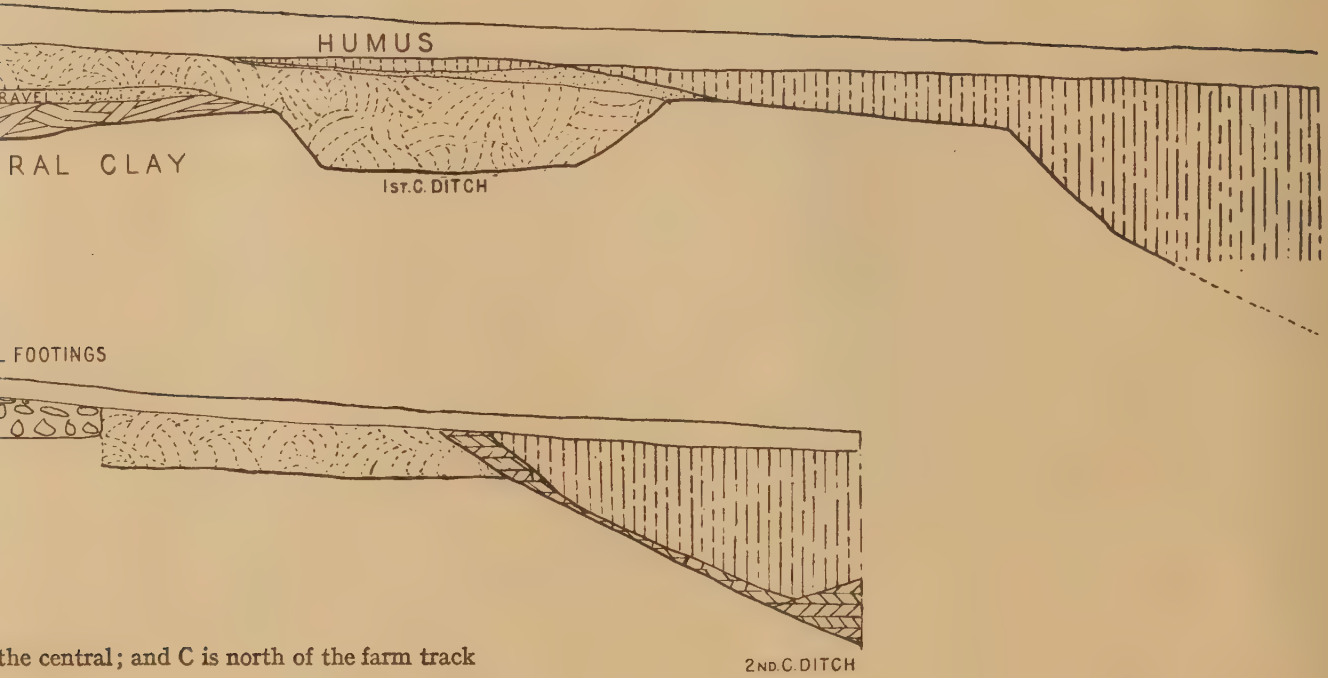


VIROCONIUM

SECTIONS THROUGH EASTERN DEFENCES

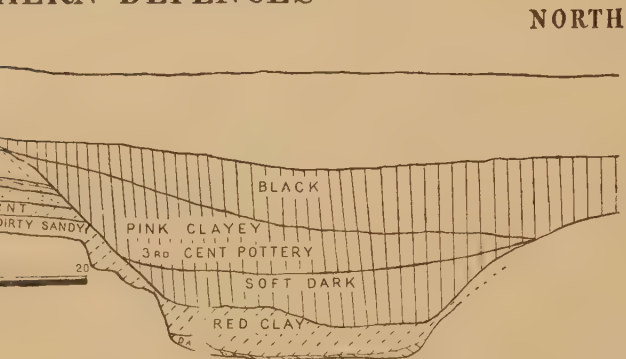


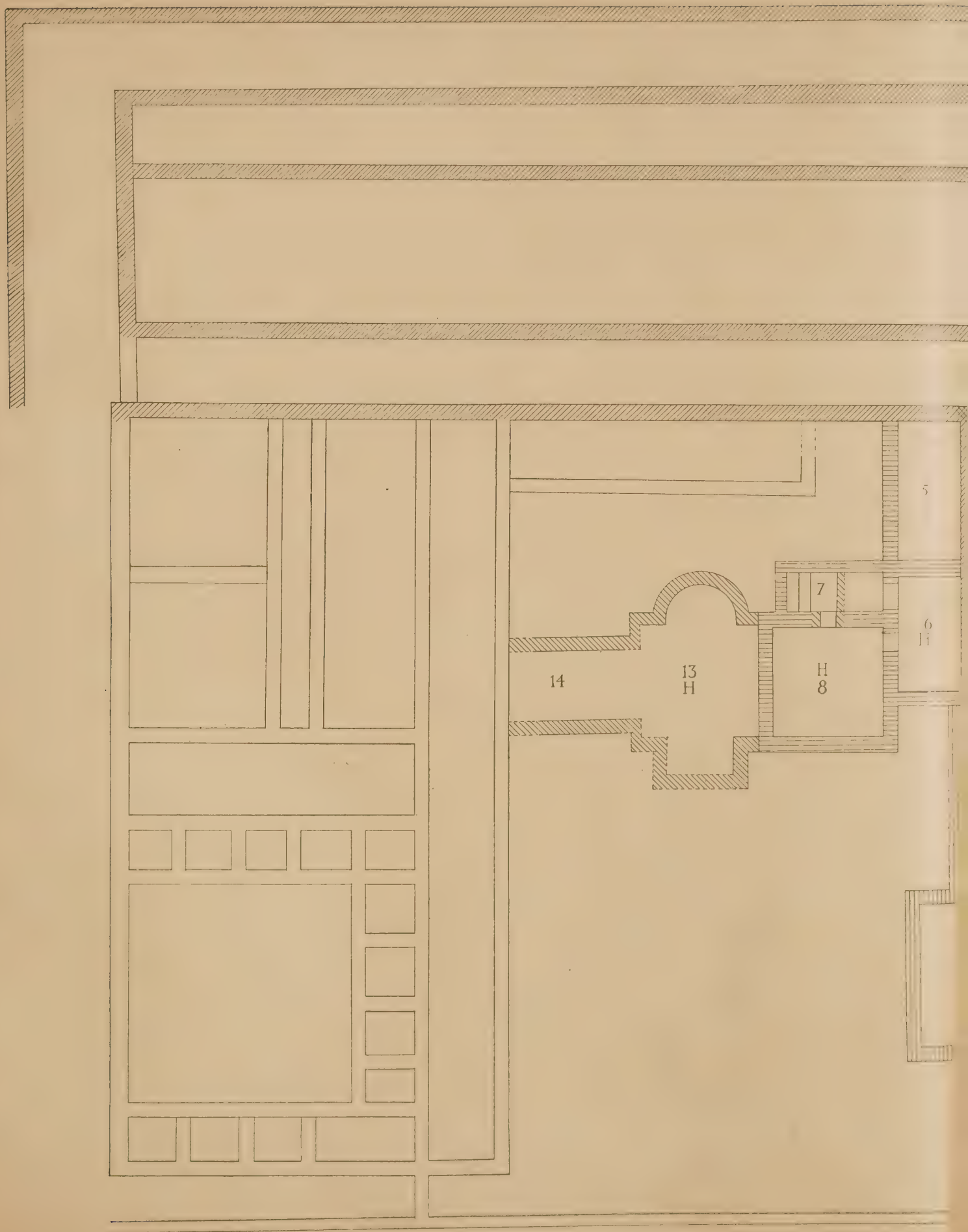
SECTION C

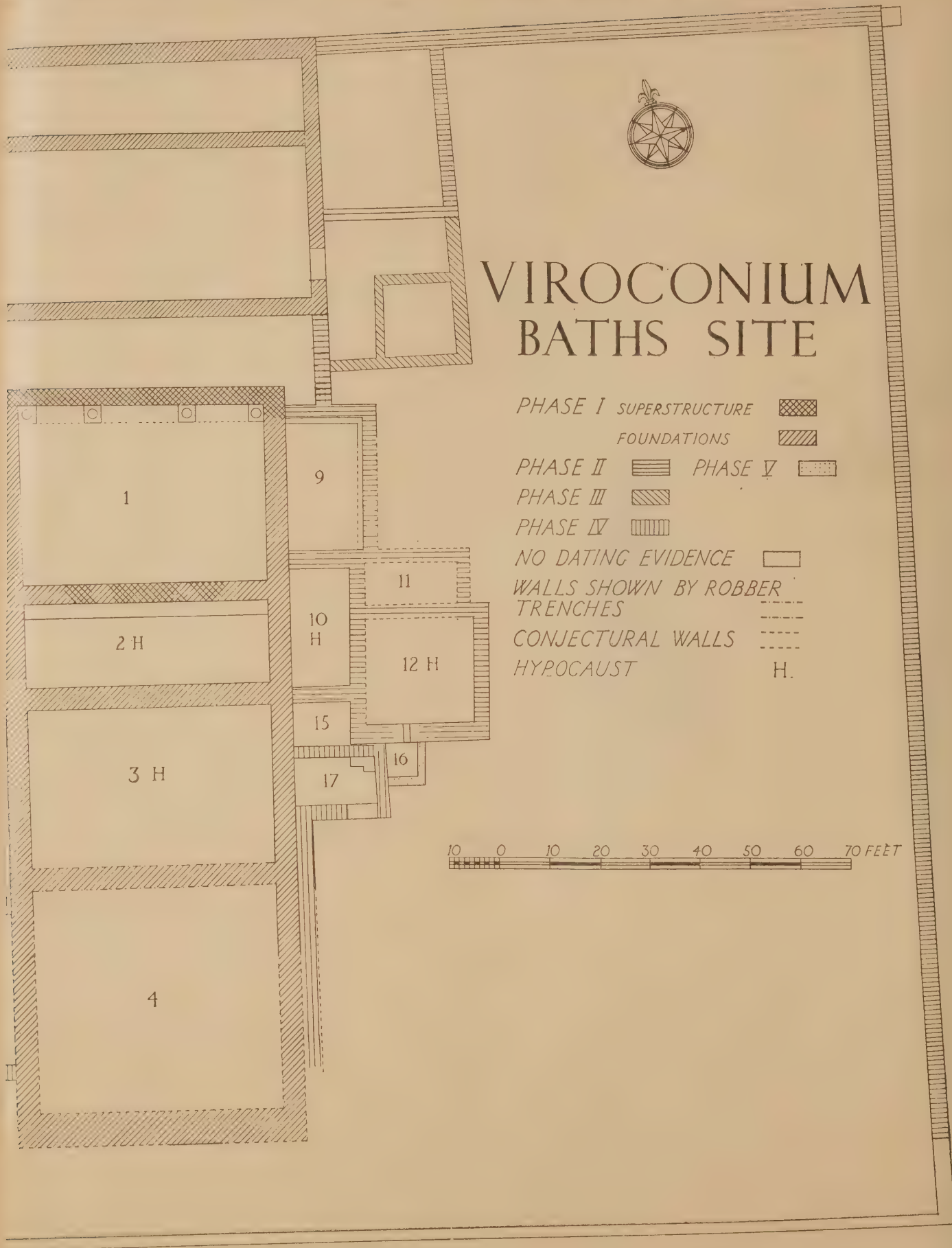


the central; and C is north of the farm track

NORTHERN DEFENCES







III.—*Luristān Bronzes in the Collection of Mr. Frank Savery,
British Consul-General at Warsaw*

By STEFAN PRZEWORSKI, Ph.D., *University of Warsaw*

Abbreviations

A. f. O. = *Archiv für Orientforschung.*

E. S. A. = *Eurasia Septentrionalis Antiqua.*

B. M. Q. = *British Museum Quarterly.*

Ill. L. N. = *Illustrated London News.*

S. P. A. = *Survey of Persian Art*, Oxford-New York, 1938.

br. breadth ; d. diameter ; h. height ; l. length ; th. thickness. All dimensions in centimetres.

Museums

Berlin, Vorderasiatische Abteilung.

Philadelphia, University Museum.

Brussels, Musées R. d'Art et d'Histoire.

Stockholm, Statens Historiska Museum.

Geneva, Musée d'Art et d'Histoire.

Tehrān, National Museum.

INTRODUCTION

THE collection of fifty-three Luristān bronzes in the possession of Mr. Frank Savery, British Consul-General at Warsaw, is among the largest private collections of its kind, and surpasses in number and choice even those of some museums.¹ It includes several hitherto unknown types and varieties, and I should like to express my sincere thanks to the owner for his kindness in allowing me to study it and to publish the results. I am no less indebted to Professor Ellis H. Minns, Cambridge, for his valuable assistance in arranging my manuscript for the press and reading the proofs, and to the Society of Antiquaries of London, who kindly accepted the paper for publication in *Archaeologia*.

In the present memoir reference will be made to the objects forming this collection under the same numbers in the text and in the plates.

Mr. Savery's collection includes the following items:

9 shaft-hole axes (1-9) ;

1 axe handle (10) ;

3 harness rings (11-13) ;

4 horse bits or their cheek
plaques (14-17) ;

3 various decorative objects
(18-20) ;

4 supports (21-4) ;

4 finials (25-8) ;

6 pendants (29-34) ;

9 garment pins (35-43) ;

1 armlet (44) ;

3 bracelets (45-7) ;

6 vessels (48-53).

¹ Since this paper was written, Mr. Savery has acquired further Luristān bronzes, with which we hope to deal at a future date.

I. CIVILIZATION AND ART OF PREHISTORIC LURISTĀN

The prehistoric cemeteries of Luristān with their extremely rich grave contents, which were first discovered in 1928, have proved a revelation for science. The district in which they lie had hardly been touched by explorers, with the exception of Jacques de Morgan who, in 1891, noted the existence in Luristān of numerous mounds, at the foot of one of which, Tepe Gulām, he collected a few stone implements.¹ Objects brought to light by the native diggers soon passed into the hands of antique dealers and began to fill the museums of Europe and America. They revealed to us a hitherto unknown world, represented by hundreds of articles of everyday use—arms, tools, personal ornaments, parts of harness and horse-trappings, chariot-fittings, and vessels, distinguished by their surprising nobility of form and variety of decoration. Archaeologists began to be interested in Luristān, and as early as 1929 the district was visited by M. André Godard, Director of the Service des Antiquités de l'Iran, to whom we owe the first reliable and exhaustive report on its prehistoric remains.² In 1933 M. Godard explored the extensive cemetery of Āb-i-Zāl, 30 kilometres north-east of Kirmānshāh.³ Excavations on a small scale were carried out by M. Roman Ghirshman at Tepe Jamshīdī in 1933,⁴ and by Sir Aurel Stein during his trip to Western Īrān in 1935.⁵ In 1935, on behalf of the American Institute for Iranian Art and Archaeology in New York, Dr. Erich F. Schmidt inaugurated systematic researches in Luristān which are still in progress, and are as yet known only from preliminary reports.⁶ In the light of these we shall have to revise and correct many of the hitherto accepted views as to the prehistory of Luristān, but pending their conclusion we must study it as best we can on the basis of the available materials. The bronzes (1-53) in Mr. Savery's collection throw a certain amount of fresh knowledge on the cultural past and the art of the country. After briefly describing the milieu which originated the bronzes, I shall treat in greater detail certain problems suggested by the present collection.

Even nowadays Luristān is one of the least accessible parts of Īrān. It is composed of parallel chains of high mountains, between which run, generally at a high elevation, long but rather narrow valleys. Taken as a whole, Luristān is a network of closely shut in and isolated mountain basins and alpine uplands,

¹ *Mission scientifique en Perse*, iv (1896), pp. 3 ff.; *Humanité préhistorique*, 1924, p. 96, fig. 34; p. 117, fig. 49; *Préhistoire orientale*, iii (1926), pp. 97 ff.; p. 234, fig. 226.

² Godard¹.

³ Godard², and Gouvernement Impérial de Perse, *Ministère de l'Instruction Publique, Annuaire 1931-1932*, p. 80, pl. 29.

⁴ Contenau and Ghirshman, pp. 91 ff.

⁵ Stein, pp. 332 ff.

⁶ Pope⁵, pp. 114, 120 ff.; E. F. Schmidt; Pope⁶, pp. 790 ff.

which can barely support a poor and very primitive, still only half-settled or nomadic population. The backwardness of modern Luristān is well illustrated by the fact that in it there still persist cultural forms which existed in Western Asia in the third millennium B.C. For instance, we still find there the characteristic practice of milking animals from behind,¹ depicted in the frieze of the Early Dynastic temple of Ninhursag at al-'Ubayd.² The wooden plough still in use in Luristān hardly differs from its prototype represented on some Sumerian cylinder seals.³ It seems almost certain that in ancient times too Luristān always lagged, both culturally and materially, behind the rich and flourishing Mesopotamia. The great caravan routes avoided it, and ancient sources state that under both the Achaemenid and the Sāsānian dynasties it was inhabited by tribes of warlike mountaineers whom the central authorities could not reduce to order. Conditions must have been the same before the rise of the Median and Persian monarchies. Similarly the Lūrs of to-day, quarrelsome and predatory, look with disfavour on the intruders, whether from the neighbouring lowlands of Mesopotamia and 'Arabistān, or from more distant parts of Īrān, who venture into their country.

As to the racial and ethnical affinities of the inhabitants of Luristān before its conquest by the Medes and Persians, science has not so far been able to give any exhaustive or satisfactory answer—partly owing to the lack of human skeletal remains and of native literary sources. Thanks, however, to the art of Luristān we can affirm the existence in the country of a protonegroid (Veddoid) element.⁴ The reliefs of some bronze vessels from the end of the eighth century B.C.⁵ show men of a characteristic racial type—short stature, short but abundant hairy growth, short face and thick lips. Individuals with similar characteristics are portrayed among the inhabitants of Elam on the Assyrian bas-reliefs of Ashurbanipal (668-626 B.C.), commemorating his wars with Tepti-Huban-Inshushnak.⁶ They formed an ethnic group, distinct from the taller Elamites proper, wore beards and long hair plaited in a pigtail hanging down the back, as is shown both by the local art and by the Assyrian reliefs. This element of the population may be identified with the *Hvajiya* of the Achaemenid inscriptions, characterized in the glazed reliefs of the palace of Darius I at Susa by their dark skin, in contrast to the fairer Elamites. They are the Eastern Ethiopians of Greek tradition. This short and dark skinned element, known as Veddoid, appears as early as 2600 B.C. at Mohenjo-Daro as one of the several components of the population, as is shown both by skeletal remains and also by a bronze

¹ Feilberg¹, p. 143, fig. 4.

² Hall, *Ur Excavations*, vol. i; Al-'Ubayd (1927), pl. 31.

³ Feilberg², pp. 84 ff.

⁴ Przeworski¹, pp. 46 ff. On the protonegroid element in Īrān see also Cameron, pp. 17 ff.

⁵ *S. P. A.*, iv, pl. 71 A, c.

⁶ Hüsing, *Mitteilungen der Anthropologischen Gesellschaft in Wien*, xlv (1916), p. 233, fig. 3, 4-5.

figurine.¹ The character of the human relics from Kish and Ur shows that the protonegroid element also existed in Sumer about 3000 B.C. To-day survivors of it are still to be found over the whole area of southern Īrān from the Indus Valley to Bāsra at the mouth of Shātt-al-'Arab, where they have managed to maintain themselves in spite of the frequent incursions of peoples of different races. Hugo Grothe² has also found them in Luristān. The protonegroid types on the bronze vessels found there belong, therefore, to one of the oldest racial groups in the south-east of Western Asia, where they have been living at least since the beginning of the third millennium B.C. The establishment of this fact is the more important as no other racial types are so clearly represented on the Luristān monuments.

In the Luristān bronzes we find, partially reflected, its relations to Mesopotamia and Elam through thousands of years, undergoing innumerable modifications dependent on the political situation on the Persian Gulf. At some moments in history the tribes of Luristān have appeared on the banks of the Tigris and Euphrates as plunderers, at others they fought at the behest of the rulers of Susa, or even were the allies of the Babylonian kings against Elam. This is proved by bronzes from Luristān with Sumerian and Akkadian cuneiform inscriptions³—not very numerous as yet, but more are constantly being found—which are not local products, but importations from Babylonia or Elam. Among the oldest are two vessels, one at Philadelphia, and the other in the possession of Mr. Dikran Kelekian, New York, with dedications to Sharkalisharri (2410–2387 B.C.), the fifth king of the Akkad dynasty. It is known that the final blow which put an end to the power of that dynasty was given during the reign of Naram-Sin (2448–2411 B.C.) by an incursion of Gutī, a mountain tribe from the Zagros to the north of Luristān. Auxiliaries from Luristān fought perhaps on the side of the Gutī both in this expedition and also in the later wars of Sharkalisharri, and these two bronze vases probably formed part of the booty carried off from Mesopotamia. On the other hand, objects have been found dating from the end of the third millennium B.C., which indicate that the inhabitants of Luristān had some relations with Elam, e.g. the spear-head in the collection of Mrs. Christian R. Holmes, New York, inscribed *property of Puzur Shushinak*, a ruler of Susa contemporary with the last kings of the third dynasty of Ur (about 2100 B.C.), and the axe in the collection of M. David-Weill, Paris, with the inscription of Addapakshu, governor of Susa in the time of Sumuabum (2075–2044 B.C.) of Babylonia. It is interesting to note that an axe with an inscription of this Addapakshu has also been found at Susa. It seems as if

¹ H. F. Friederichs and H. W. Müller, *Anthropos*, xxviii (1933), pp. 383 ff., pl. 1, 12.

² *Beiträge zur Kenntnis des Orients*, vi (1908), p. 110.

³ Langdon, *S. P. A.*, i, pp. 279 ff.; Godard², p. 129, fig. 3; Meek, pp. 7 ff.

these weapons were not booty, but rather decorations used to reward the tribal chiefs and warriors of Luristān for the services their detachments had rendered to the rulers of Elam. We may also perhaps explain in a similar way the relatively greater numbers of daggers and arrow-heads with inscriptions of Babylonian kings such as Marduk-shapik-zeri (1170-1153 B.C.), Ninurta-nadin-shumi (1152-1147 B.C.), Nebuchadnezzar I (1146-1123 B.C.), Marduk-nadin-ahe (1116-1101 B.C.), and E-ulmash-shakin-shumi (1016-1000 B.C.) in the Royal Ontario Museum, Toronto, the British Museum, the Louvre, at Tehrān, and in the collection of Mrs. Christian R. Holmes, New York. At this period the tribes of Luristān were clearly supporting in their wars against Elam the rulers of Babylonia, one of whom, Nebuchadnezzar I, took Susa in 1130 B.C.¹

The fact that their armed help was so highly esteemed by the kings of Babylonia shows of itself the great military value of the mountain tribes of Luristān in the late second millennium B.C. It is comprehensible that arms of all kinds should occupy such a prominent place among the Luristān finds. We meet here all objects of the war equipment in the Ancient East, namely daggers and, later, swords, axes (1-4, 6-8), maces, bows, javelins, spears, and shields. In Luristān, as elsewhere, the warriors fought on foot or from chariots. There are preserved separately two cheek-plaques, one in the collection of Dr. Phyllis Ackerman, New York, another in the possession of Messrs. R. and M. Stora, Paris,² which once formed part of one horse-bit: they represent an animal with a lion's head, harnessed like a horse to a chariot, on which stands a warrior shooting from a bow, while the quiver hanging from his belt contains arrows and a spare bow. There is, however, only indirect evidence of the existence of mounted warriors in the Luristān army. Their position is much the same as in the remaining countries of Western Asia. Although the art of riding on horse-back is there of immense antiquity, being represented on monuments as early as about 3000 B.C., in the third quarter of the second millennium B.C. only the highest commanders (kings) or their couriers rode horses in the field. From about 1000 B.C. representations of armed riders become more frequent on the reliefs from Upper Syria and Upper Mesopotamia, and in the ninth century B.C. in the Assyrian army they took the place formerly occupied by the war chariots. A cheek-plaque in the collection of Mr. David-Weill³ gives a side view of a horse on whose back stands a man in frontal view holding its mane. Further, from the beginning of the first millennium B.C. finds of bits become more and more frequent, especially of bits with a rigid mouth-bar (15-17),

¹ König, 'Geschichte Elams,' *Der Alte Orient*, 29, 4 (1931), p. 17; Cameron, pp. 132 ff.

² *S. P. A.*, i, p. 861, fig. 299; Rostovtzeff, pl. IV, 2.

³ Godard¹, pl. XLV, 174; *S. P. A.*, iv, pl. 31 B. See also Wiesner, 'Fahren und Reiten in Alteuropa und im Alten Orient', *Der Alte Orient* 38, 2-4 (1939), pp. 76 ff.

which goes to prove that in Luristān, too, cavalry was steadily gaining in importance.

There are also sufficient proofs that the horse played a great part not only in war, but also as bred and used in the communications of ancient Luristān. The large number of representations of the horse, principally as cheek-plaques of bits (16, 17), is very striking when we consider that there is none of asses or mules. The horse is sometimes represented in harness but without affording more than an imperfect idea of the mode of harnessing current in Luristān.¹ Far more information on this score is to be obtained from the various harness-pieces or chariot-fittings, which are often very decorative, and show how devoted the ancient inhabitants of Luristān were to gear of this sort. Most frequently preserved have been bits which were placed in graves under the heads of the male dead. In many cases the place of side-bars (14) is taken by cheek-plaques (15-17), in which, besides the subjects already mentioned, many others occur, including that favourite composition in Luristān art—the mythical hero struggling with wild beasts. No less decorative were sundry ornamental pendants (11-13), small bells and rattles,² attached to the horse's collar, as is represented on some cheek-plaques at Philadelphia.³ Less frequently used were decorative metal pieces on chariots as hub-caps⁴ or pole-caps.⁵ The pole was sometimes fitted with metal rein-rings surmounted by a plastic group.⁶ Thus the prehistoric population of Luristān employed the same system of harnessing as that used in the first half of the third millennium B.C. in Mesopotamia, where numerous similar rein-rings have been found. Those from Luristān are more recent, dating from the beginning of the second millennium B.C. Finally bronze pieces (25, 26) were affixed to the sides of the chariot body, and probably served to attach the reins. Not all chariots were, of course, decorated so lavishly, nor did all harness boast so many decorated parts. These were mostly the property of the tribal chieftains and of the wealthy people of the country.

War and plundering forays, hunting adventures depicted for us in numerous compositions, horse breeding and pastoral pursuits in general—these were the main elements in the life of the Luristān highlanders. Agriculture had to take the second place, and the number of agricultural implements which have come down to us is relatively insignificant. In antiquity, just as to-day, the tilling of the soil was only carried on in a very primitive manner and on a very limited scale, so that it can but barely have sufficed to meet local needs. The cultivation

¹ Godard¹, pl. xli, 167.

² Speleers², p. 94, fig. 15 F-J.

³ Legrain, pl. xviii, 52.

⁴ *Ibid.*, pl. viii, 25; *S. P. A.*, iv, pl. 56 B.

⁵ Godard¹, pl. xlviii, 181; Hollis, pp. 191 ff.; *S. P. A.*, iv, pl. 56 C.

⁶ S. Smith¹, pl. xv A; Dussaud², pp. 227 ff.; *Encyclopédie photographique de l'art*, i (1936), p. 285, fig. F; *S. P. A.*, iv, pl. 26 B-C.

of the vine would also seem to have been practised (39), though only on a small scale. It was the domestic animals which constituted the main wealth—cattle, sheep, or the horses for which Luristān did not cease to be famous even in later times. The mass of the nomadic and half-settled population of Luristān was not very well-to-do, as is proved by the small amount of objects, decorative or other, in the precious metals, gold and silver, which occur in prehistoric graves.

For that reason the bronze ornaments are all the more abundant, beautiful, and varied. Like the objects from Koban in the Central Caucasus, they testify to the innate taste of the mountain tribes of Western Asia and their passion for metal ornaments of all kinds.¹ In Luristān we find garment pins (35-43), ear-rings, necklaces, armlets (44), anklets, bracelets (45-7), belts, fibulae, rings, and pendants (29-34)—a complete series, that is to say, of the metal objects used by prehistoric man for his adornment. The only articles missing are fillets (diadems), which have not yet been reported from Luristān, though they were known in Īrān at least as early as the first half of the second millennium B.C., as is proved by the specimens from Tepe Hissar III.² They are all local products except the fibulae, one type of which was imported from Upper Syria by way of Mesopotamia, while the others are related to finds from the region of Lake Sēvān in Soviet Armenia. Fibulae, moreover, never enjoyed great popularity in Luristān, being too modest in comparison with the extraordinary decorative garment pins, which issued from the local workshops. All the ornaments, as indeed in general all the bronze articles, produced in Luristān, are distinguished by masterly technical skill revealed both in the precision of casting and also in the careful finish. It is perhaps in the various ornaments that we can best observe the experience of the craftsman who, in the surface decoration, frequently applied several techniques, such as hammering, chasing, engraving, and stippling.

When we examine all these numerous relics of the artistic handicraft of Luristān, the personal ornaments, the ceremonial weapons, the elaborate equipment for horses, the cult vessels, we perceive how large and many-sided was the animal-world, both real and fantastic, which found application in them. They are an inexhaustible storehouse of *motifs*, modified with great ingenuity to suit the purpose for which they are employed—it may be to decorate a surface, to give an article an artistic purpose, or to clothe it in a plastic form appropriate to its practical use. Often the compositions are of considerable size, and include several animals—hunting scenes, for instance, animals fighting

¹ See Przeworski, *S. P. A.*, i, pp. 241 ff.

² E. F. Schmidt, *Museum Journal*, xxiii (1932), pl. cxxii A, and *Excavations at Tepe Hissar, Damghan*, 1937, pl. LIV.

one another, the great deeds of a divine hero combating wild beasts in order to protect the shepherds' flocks, treated in the form either of friezes running round vessels or covering metal girdles, or of plastic groups crowning pins (42), or cult standards (19). More frequently we find single animals, either as cheek-plaques (15-17), or as pin-heads (35, 37), or as the decoration of axe-sockets, or finally, as tiny pendants with a suspension ring (29-32, 34). Sometimes, especially on bracelets (45-7), certain parts of the animal are employed for this same purpose—generally the forequarters or the head only. Nor is this an exhaustive account of all the applications of animal *motifs* by the Luristān artists. Indeed, their treatment of such *motifs* is extraordinarily varied, and ranges from brutal realism in the rendering of the body, movement, and even physiognomy of animals to an extreme stylization, which reduces the animal or its parts to mere conventionalized zoomorphic *motifs* (47). It is in this field that the individuality of Luristān art finds its strongest and most perfect expression, for its animal style is an entirely original phenomenon, and differs in many respects from the later conceptions of the North-Eurasiatic Scytho-Sarmatian art, spread in its several regional varieties from the Dnieper and the Black Sea to Siberia and Northern China.

Among the Luristān finds we can discriminate a group, not as yet very numerous, of objects into which enter both iron and bronze, the former metal used for the functional and the latter for the decorative part of the object.¹ Thus we find both swords² and daggers³ with iron blades and bronze hafts, halberd axes,⁴ and adzes,⁵ with blades of iron and decorated sockets of bronze, pins, and cult standards, with iron shafts and bronze heads (43, 19), bracelets in which the ring itself is of iron and the plastic ends of bronze.⁶ These objects belong to the early centuries of the first millennium B.C., when, though iron was being more and more frequently employed, the technical skill in working it was still limited. Whenever it is a question of executing simple parts such as sword or axe blades, shafts, or rings, the craftsmen acquit themselves excellently, but they cannot yet conjure out of iron the more supple and graceful forms required for plastic ornamentation. For such purposes bronze still maintains its full value, and excavations at Āb-i-Zāl show that in the eighth century B.C., although the majority of the pins are already of iron, 80 per cent. of the armlets are still of bronze.

These are not the latest specimens of the industry of Luristān. Decorative bronzes still continued to be used. Some of them show connexions with Neo-

¹ On the metal objects of this kind from the Near East see Przeworski,⁶ *Die Metallindustrie Anatoliens in der Zeit von 1500-700 v. Chr.*, 1939, chs. iii and iv.

² Speleers³, p. III.

³ Legrain, pl. XI, 3.

⁵ Godard¹, pl. xx, 60, 60 bis.

⁴ Speleers¹, p. 82, fig. 13.

⁶ Godard¹, pl. xxviii, 89-92.

Babylonian art, while others reflect in some respects the subsequent Achaemenid art, and may therefore be dated about 600 B.C. This is the lower chronological limit of the prehistoric art and civilization of Luristān. It is more difficult to say when its beginnings took shape. From the end of the third millennium B.C. we possess only isolated specimens—bronze daggers with leaf-shaped blades,¹ all of the same type, and akin to the gold specimen from the Royal Graves at Ur, axes with an oblique socket, which have their counterparts at Tepe 'Alī-Ābād in 'Arabistān (see p. 242). There are little specimens (rein-rings, for instance) from the first half of the second millennium B.C., but certain finds, as the spiked axes and various garment pins, may be referred to about 1400 B.C. A considerable number of various finds dates from the last centuries of the second and the first centuries of the first millennium B.C. In view of their affinities to the Assyrian monumental art others may be referred to the eighth century B.C., e.g. the numerous situlae covered with friezes in repoussé. There are, however, very many specimens which for the present it is practically impossible to date exactly, and in such cases we must be satisfied with the general statement that they, like the majority of the bronzes from the Luristān graves, were produced between 1250 and 600 B.C.

The prehistoric civilization and art of Luristān was developed from sources common to it and its nearest neighbours, Mesopotamia and Elam, and was for the most part in constant contact with them. The craftsmen of Luristān drew freely on the typological and iconographic repertoires of Sumer and Akkad and, later, of Assyria and Babylonia, but they transformed all their borrowings, both technical and artistic, with greater or less independence in conformity with local needs and tastes. The ties connecting them with the West are seen to be particularly strong, if we compare the Luristān bronzes with contemporary remains from Central Īrān. In Siyalk, near Kāshān, two large cemeteries, dating from about 1100–750 B.C., have been excavated by Mr. Roman Ghirshman² on behalf of the Louvre; the civilization revealed there shows many affinities to that of Luristān, but is entirely free from any Mesopotamian influences. On the contrary, the civilization of the remaining mountain districts of Western Īrān was close to that of Luristān. The bronzes from the vicinity of Hamadān (axes, bits, zoomorphic pendants) are very near to the objects of the same kind from the Luristān graves. Finally, near Mākū a hoard of bronze objects has recently been found, consisting of daggers with handles for inset plaques, a garment pin, pendants, chariot fittings, etc., which illustrate types already well

¹ Godard¹, pl. ix, 21; Legrain, pl. xi, 41; Moortgat², pl. i, 1; Speleers¹, p. 83, fig. 14; *S. P. A.*, iv, pl. 54 A.

² Ghirshman, *Ill. L. N.*, nr. 5004 (1935), pp. 416 ff.; *Syria*, xvi (1935), pp. 238 ff.; *Asia*, xxviii (1938), pp. 645 ff.

known from Luristān.¹ We see that even in remote Ādharbāyjān there existed, in the twelfth century B.C. (this is the date of the Makū hoard), intimate contacts with Luristān.

The connexions of prehistoric Luristān with the contemporary civilizations of the Old World are indeed of an extremely varied nature, and spread very far afield. The civilization of the late second and the early first millennium B.C. in the Talish region on the south-western shore of the Caspian Sea has some affinities to that of Luristān, and thence radiate numerous inter-relations with Transcaucasia and the Central Caucasus. No less noteworthy are those which lead from Luristān through Assyria and Armenia to Eastern Anatolia,² and even to Upper Syria. Finally, we find also a few resemblances between the Luristān finds and Chinese art of the Han period,³ and the Scythian art of South Russia, while, on the other hand, analogies to these finds have also been observed in the civilizations of the Hallstatt period in Central Europe. All this, taken together, proves how rich, varied, and at the same time enduring, were the civilization and art of Luristān, if elements akin to them appear in so many countries and at such different periods. Only in the light of this fact can we appreciate properly the character and importance of the Luristān bronzes.

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² On the Anatolian decorative bronzes and personal ornaments of the eighth century B.C. related to those of Luristān see my paper: 'Die Bedeutung der anatolischen Bronzefunde' (*II. Türkischer Geschichtskongress*), Istanbul, 1937, pp. 7 ff., and with more details and full illustration: *Die Metallindustrie Anatoliens in der Zeit von 1500-700 v. Chr.*, 1939, pp. 74 ff., 178.

³ Yetts, pp. 76 ff.; Hornblower, pp. 76 ff.

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III. CATALOGUE OF THE COLLECTION

A. Shaft-hole Axes

The metal shaft-hole axe appears in Western Asia at the end of the fourth millennium B.C., and from then onwards forms a characteristic weapon or tool, but did not oust axes of other types. In practically all West Asiatic countries in the second half of the second millennium and at the beginning of the first millennium B.C. we find a great variety of metal axes which differ especially in the system of fastening them to the wooden shaft. In this respect the Luristan finds are less specialized and the shaft-hole axes predominate among them. They are distinguished by a variety of blade forms, a richness and inventiveness in the plastic decoration of the socket, unknown elsewhere in the Near East. Some idea of this can be obtained from the axes (1-8) which belong to several types.

1. L. 8.8: socket, h. 5.5, upper d. 2.6, lower d. 2.0; th. of the cylinder-wall, upper 0.5, lower 0.2; cutting edge, br. 4.5 (pl. LXXII, *a*).

2. L. 4.3: socket, h. 4.3, upper d. 2.5, lower d. 2.0; th. of the cylinder-wall, upper 0.5-0.6, lower 0.2; cutting edge, br. 3.6. At the lower rim of the socket a small fracture which becomes a long vertical crack (pl. LXXII, *b*).

Axes 1 and 2 have a plain cylindrical socket, the upper rim of which is strengthened by a thickening, less obvious in 2, but in 1 taking the form of a ridge 0.8 broad. The blade, relatively narrow at the socket, is inclined, so that the upper rim of the socket and the upper surface of the blade form one sloping line. The blade is of a characteristic form, being cut out below and then expanding into a broad, slightly convex cutting edge. This edge, sharply defined from the upper line of the blade, passes into its lower line with a gentle curve now deformed by use (1).

In form and dimensions a specimen in the Louvre¹ approaches these two axes (1, 2). It differs from them, however, in its lesser concavity and the gentler inclination of the blade: the lower rim of the socket is more marked and on the socket engraved linear *motifs* appear. This whole group is derived from an older type represented in the Royal Graves at Ur² and also known from the border districts of Īrān, e.g. Luristan³ and Tepe

¹ Godard¹, pl. xv, 45.

² Woolley, *Ur Excavations*, vol. ii: The Royal Cemetery, 1934, pl. 223

³ Godard¹, pl. xiv, 44; Speleers³, p. 64, fig. 16.

'Alī-Ābad.¹ We find in these axes the same ridge on the upper rim of the socket, the same inclination and straight upper line of the blade which is set in the same way at the top of the socket. With respect to these characteristics 1, 2, and similar axes show a certain evolution in the shortening of the blade, the broadening of its base, a change in the shape of the cutting edge, which from curved becomes slightly convex and much broader, and in the horizontal, instead of oblique, lower end of the socket. This evolution presumably took place in Western Īrān—up to now no axes of this type are known from Mesopotamia—and at a relatively late date, seeing that in mountain districts inaccessible like Luristān the forms of tools and weapons enjoy a long life and change slowly. Axes of the older type may have been still in use in Luristān at the end of the third millennium B.C., whereas the type represented by 1 and 2 must have developed after 2000 B.C., most probably in the second quarter of the second millennium B.C.

The other axes (3, 4) in the present collection, genetically connected with those just described, are more recent.

3. L. 9.8: socket, h. 6.3, upper d. 2.6, lower d. 2.3; th. of wall, upper 0.4-0.5, lower 0.3; cutting edge, br. 4.6 (pl. LXXII, c).

In patina and metal this axe is like 1 and 2; it, too, is comparatively heavy.

This axe (3) has a blade of the same shape and set in exactly the same way as the blades of 1 and 2; the only difference is that its blade broadens out towards the cutting edge, so that the upper line seems to be turned upwards. The cylindrical socket is a little longer than in 1 and 2, becoming a true shaft-tube, and is strengthened with five ribs. The sixth is only half a rib. These ribs are well marked on the back but disappear on the sides of the shaft-tube, so that it is quite smooth in front.

We find three similar ribs on a bronze axe of a different type from a grave of the fifteenth century B.C. at Tepe Ghiyan II near Nihāvand.² The specimen from Luristān (3) is later and typologically younger than axes 1 and 2; we can place it presumably between 1500 and 1250 B.C. It is the only example from Western Asia of a metal axe with ribs of this sort on a cylindrical shaft-tube. Asiatic axes never have more than five ribs, so we have the maximum number in 3.

4. L. 14.4: socket, h. 11.4, upper d. 2.4, lower d. 2.6; cutting edge, br. 6.7. Patina dark green, not very uniform (pl. LXXII, d).

Already in antiquity two identical garment pins have been driven into the socket which they have pierced a little above the lower rim; the point of one of them protrudes outwards through the hole. It would not now be possible to remove them without damage. These pins (length 13.0-13.5) have no separately formed heads but their shafts thicken into egg-shaped tops. Among the extremely numerous pins from Luristān no specimen of this type has been noted.³

The blade, though essentially of the same shape as those of axes 1-3, is more elongated and narrower at the socket. In this respect it recalls rather the Mesopotamian and Īrānian finds of the third millennium B.C. (see p. 241). The very slight inclination of the blade

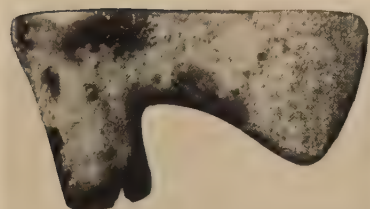
¹ Gauthier and Lampre, *Mémoires de la Délégation en Perse*, viii (1907), p. 145, fig. 295.

² Contenau and Ghirshman, pl. v, 5.

³ I have described and classified the bronze pins from Luristān in *S. P. A.*, i, pp. 242-4.



a. Bronze no. 1



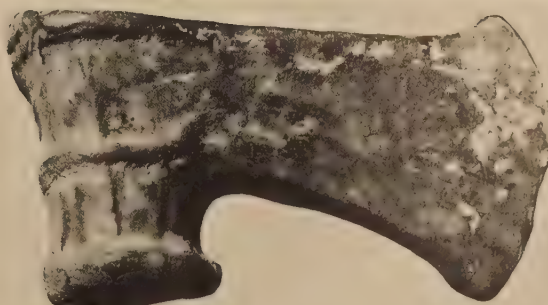
b. Bronze no. 2



d. Bronze no. 4



c. Bronze no. 3



e. Bronze no. 5



f. Bronze no. 6



a. Bronze no. 7



b. Bronze no. 8



c. Bronze no. 9



e. Bronze no. 11



d. Bronze no. 10

Shaft-hole axes (*a*, *b*), forgery (*c*), axe-handle (*d*), and harness ring (*e*)

also perhaps indicates a closer relation to that group than in the case of the Luristan axes of the second millennium B.C. (1-3). The cutting edge is in places bent and jagged from much use.

The shaft-tube has no analogues among Oriental axes: it is long and slender and narrows slightly towards the bottom, where a flat band surrounds the rim. This corresponds to the strongly accentuated ridge of the upper rim, which makes a slightly upturned projection at the back of the shaft-tube. A bronze axe from Faskau in the Northern Caucasus, of the tenth or ninth century B.C., has a similarly formed but short shaft-tube.¹ The characteristic features of axe 4 are, therefore, of a relatively late date and it must be ascribed to the beginning of the first millennium B.C. It is not to be regarded as a form derived from axes 1-3 but rather as a variant which developed independently through hitherto unknown intermediate forms out of the prototypes of the third millennium B.C., common to all the four specimens (1-4).

5. L. 11.6: socket, h. 6.1, upper d. 4.1, lower d. 3.5; th. of the wall, upper 0.8-1.0, lower 0.5-0.6; cutting edge, br. 6.3 (pl. LXXII, e).

This is an exceptionally heavy piece, covered with a dark green patina except that at certain places on the blade, namely on both sides near the cutting edge and on one side by the upper rim, there are agglomerations of lighter spots.

The socket, relatively broad and thick, narrows towards the bottom and has a concave profile which is further emphasized by the ribs. Two of them surround the rims of the socket, while the third cuts across it almost in the middle. The upper and middle ribs lose themselves in the upper and lower lines of the blade. The lower rib projects forward while the uppermost one is extended upward from the back of the socket.

The blade is slightly inclined and broadens out towards the cutting edge owing to the downward turn of the lower line. Just inside the cutting edge the blade has been widened by being strongly hammered out after removal from the mould. In this it recalls the hatchets of various types, so popular in the Near East down to the first centuries of the first millennium B.C. The cutting edge is convex and shows numerous jags due to use. All these features taken together go to show that axe 5 was not a weapon but a tool used probably for hewing and working wood.

In contrast to axes 1-4 which were all very carefully cast 5 is distinguished by its rough workmanship. The surface of the socket has longitudinal folds; both the ribs and the upper and lower lines of the blade are thick and clumsy. This is due less to carelessness in the finishing treatment than to defects in casting due to the bad finish of the mould and the inadequate technique of casting in the second-rate provincial workshop which produced axe 5.

No metal axes of this type are known from Western Asia; in the Royal Graves at Ur,² however, we find both battle-axes and tools with some similar features, for instance, the short and relatively broad socket with a concave back and rounded moulding, and the inclined blade which broadens just a little towards the cutting edge. We may see in such specimens the prototypes of the axe from the hoard of Tell Sifr in Lower Meso-

¹ E. Dullo, *Prähistorische Zeitschrift*, xxvii (1936), p. 69, fig. 1, 4.

² Woolley, *op. cit.*, pl. 224, A. 10.

potamia (about 1200 B.C.).¹ The socket of this axe has two ribs at no great distance from the rims. An adze² from the same hoard has a longer and more concave socket and the rims framed with ribs. Although these objects certainly have common elements with axe 5, they are not sufficient to fix exactly its chronology. In any case it is a late product, which I would attribute provisionally to the third quarter of the second millennium B.C.

All the above Luristān axes (1-5) are characterized by a certain simplicity of form and by the very scanty decoration of the socket or shaft-tube, confined to a ridge (1, 2, 4), to more or less developed ribs (3, 5), or to a flat ribbon round the bottom (4). The spiked axes (6-8), now to be described, are distinguished by genuine aesthetic qualities, due to the graceful form of the blade, the plastic ornamentation of the socket, sometimes also to the engravings on the blade (8), and to the spikes on the back of the socket. Though larger than axes 1-5, they are extremely light in comparison with them. This may be due to differences in the composition of the alloys used, and also to the far more perfect casting of the spiked axes (6-8).

6. L. 21.0: socket, h. 5.4, d. 2.3; spikes, h. 5.8; blade, th. at socket 1.2, br. of cutting edge 9.4³ (pl. LXXII, *f*).

7. L. 20.0: socket, h. 5.9, d. 2.1; spikes, h. 5.2; blade, th. at socket 1.1, br. of cutting edge 10.9 (pl. LXXIII, *a*).

8. L. 19.5: socket, h. 4.5, d. 3.4; spikes, h. 3.8; blade, th. at socket 1.0, br. of cutting edge 7.7. There are two holes on one side of the socket between the ribs, and a jag in the upper rim (pl. LXXIII, *b*).

All three axes have cylindrical sockets but there are a good many differences in the proportions according as to whether the socket is long and narrow (6, 7), or short and broad (8). The blade starts from the upper part of the socket. Sometimes its rim forms a continuation of the upper rim of the socket (6) but more frequently its upper rim sticks up, to a greater or less degree, above the socket (7, 8). In the first case the spiked axes do not differ from the other shaft-hole axes, for instance, those already described (1-5); in the second they continue a tradition which goes back to the first half of the third millennium B.C. Blades set in this way are to be seen in axes from Tepe Gawra VI⁴ and from Ashur (about 2000 B.C.).⁵

The base of the blade is broad at the socket, narrows considerably as it turns downward, and subsequently broadens again into the cutting edge which is set nearly perpendicularly to the axe-shaft. The upper rim of the blade is generally sloping and varies from almost straight (7, 8) to slightly convex (6). The form of the cutting edge also varies from almost straight (6) to rounded (8). Further, the curve described by the lower rim of the blade varies; it may be either completely open (8) or more closed in (6, 7).

On the back of the socket each axe is provided with four uniform spikes which increase its value as a weapon and assure the necessary counterbalance to the sharply inclined blade. There are, however, fundamental differences in the dimensions and form

¹ Montelius, *Die älteren Kulturperioden im Orient und Europa: II, Babylonien und Assyrien*, 1923, p. 206, fig. 636.

² Montelius, *loc. cit.*, fig. 633.

³ Formerly property of Major W. Dziewanowski, Warsaw, see Przeworski², p. 12, fig. 4.

⁴ Speiser, *Excavations at Tepe Gawra*, i (1935), pl. 48, 3. ⁵ Dullo, *op. cit.*, p. 105, fig. 11, 2.

of the spikes between the individual specimens. In two cases (6, 7) they consist of bars, the extensions of which form vertically connected and sharply pointed cones of considerable length. This form of construction admits of various possibilities. The points and the joining band may meet not far from the back of the socket, in which case there are thickenings at the points of juncture (7) or the spikes may be united at their base by a vertical band, thereby creating a separate whole (6). In the third specimen (8) the 'spikes' have quite a different form, being short and thick with blunt ends.

The connexion between the spikes and the socket is emphasized and strengthened by lateral ribs on both sides of the axe. These ribs may be either smooth (6, 7) or longitudinally furrowed (8). The lowest of them forms the thickened lower rim of the socket but differs from the top one in that this disappears into the surfaces of the blade. This is also true of the middle ribs of axes 6, 7, but in axe 8 the second rib from the bottom passes directly into the rim of the blade. In axes 6, 7 the three upper ribs accordingly meet together before reaching the narrowest point of the blade. In axe 7 they are prolonged beyond the point of meeting in a single line ending in an arrow-head, which extends into the broader part of the blade. In axe 8 the two upper ribs also have arrow-head ends which extend only a little beyond the socket.

In all three axes (6-8) the blades are bordered by flanges which grow narrower as they approach the cutting edge. Axe 8 is unusual in that its flanges have engraved ornamentation at the narrowest point of the blade. The decoration consists of fields divided from one another by groups of three parallel lines and filled alternately with zigzag or hatching. The same linear motives are also to be found on other Luristān bronzes (44), beginning from the second half of the second millennium B.C.

It will be seen from the above description that, while axes 6 and 7 are very near to one another, axe 8 represents a variant which differs from them in many essential details. Spiked axes form a particularly numerous group of Luristān bronzes. Some, at least, are to be found in all the larger collections and no two are absolutely identical. No specimens are recorded which exactly correspond to those of Mr. Savery's collection. The nearest analogy to axe 6 is to be found in certain specimens in the Louvre¹ and at Brussels,² but there is a difference in the form and setting of the blades, in the finish of the side-ribs, and of the perpendicular band joining the points. Axe 7 also has no exact parallels, though two allied specimens exist in the Historisches Museum, Bern.³ Axe 8 has rather more parallels, among which may be indicated bronzes at Geneva,⁴ in the Leigh-Ashton collection, London,⁵ and at Brussels.⁶ None of these specimens, however, has either furrowed ribs or arrow-head ends to the upper ribs, or engraved decoration on the flanges of the blade. The spiked axes in Mr. Savery's collection must therefore be regarded as representing hitherto unknown variants of this large class of monuments.

Spikes reinforcing sockets first appear in Mesopotamia and Western Īrān in the first half of the third millennium B.C. Spiked pickaxes have been found in the Royal Graves at Ur⁷ and in Tepe Għiyan,⁸ and their use is admirably illustrated by the combat scenes

¹ Dussaud¹, pl. XLII *bis*.

² Speleers¹, p. 81, fig. 11.

³ Zeller, *Jahrbuch des Historischen Museums in Bern*, xvi (1936), p. 81, fig. 132-3.

⁴ Contenau³, pl. 11.

⁵ Ashton, pl. 1A.

⁶ Speleers¹, 79, fig. 8.

⁷ Woolley, *op. cit.*, pl. 224, U. 9680.

⁸ Dussaud¹, p. 251, fig. 10.

on cylinder seals of the period from the Akkad dynasty to the third Ur dynasty.¹ The long pointed blade is set on a long socket, cut out below and provided with three spikes at the back. The first real spiked axes appear only about 2000 B.C., cf. a specimen from Ashur.² From that time onwards they were more and more employed in Western Asia, and numerous finds from Susa, Luristān, and Tepe Ghiyan testify to their increasing use, to the advanced typological differentiation, and to the enduring popularity of spiked weapons among the nomad and half-settled tribes of Western Īrān. Nowhere do they appear in such quantity or in such numerous and original varieties as in this region. In the oldest specimens the spikes still sit rather loosely on the back of the socket and it is only in the fourteenth century B.C. that we meet with axes in which they are more intimately connected with the socket by means of lateral ribs. Our specimens (6-8) belong to this category of spiked weapons, and they may be dated about 1400 B.C. In Transcaucasia, Anatolia, Syria, and Palestine spiked axes went out of use about 1200 B.C.; in Luristān, however, they survived down to the beginning of the first millennium B.C. As yet we have no means of establishing a more exact chronology of various types of Luristān spiked axes. They are certainly among the most characteristic of the Luristān bronzes and testify to the liking of the warlike highlanders for these light, ornamental, and, at the same time, very serviceable two-handed weapons.

The socketed axes 1-8 were all weapons with the exception of 5 which was a carpenter's tool. In general in this group of Luristān bronzes battle or ceremonial arms prevail, and implements, such as axes or adzes, occur very infrequently (see p. 234).

9. L. 12.8: socket, h. 10.8, upper d. 2.7, lower d. 2.5; blade, th. at socket 2.1, cutting edge, br. 3.3 (pl. LXXIII, c).

A forgery similar to one in the possession of Major W. Dziewanowski, Warsaw,³ and probably made in the same workshop. The bronze is a curious dark brown without patina. The unusual shape recalls an axe⁴ in the British Museum from Tell Sifr.⁵

B. *Axe Handle*

10. L. 22.0: upper d. 2.9, lower d. 3.5; th. of the wall 0.5-0.6. Patina almost unbroken: lighter in some places but in the main dark green (pl. LXXIII, d).

A long and narrow tube into which was inserted from the decorated end a wooden shaft from 2.3 to 2.5 in diameter. An almost identical bronze is at Philadelphia.⁶ The decorated parts of the two specimens are exactly the same: in both, the ornamental frieze is limited to three parallel horizontal lines at each end, between which three groups of three vertical lines each divide it into three fields filled in with a herring-bone pattern without any connecting vertical line. The ornament is not in very high relief. The lower part of the handle, which is quite smooth, was for holding; it is slightly damaged, having three holes and a dent caused by pressure.

¹ Collected by Dullo, *op. cit.*, p. 101.

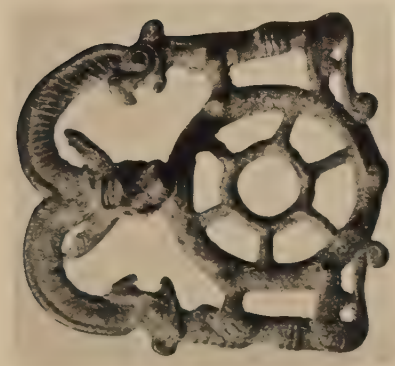
² Dullo, *op. cit.*, p. 105, fig. 11, 1.

³ Przeworski², pp. 25 ff., fig. 27.

⁴ Montelius, *op. cit.*, p. 206, fig. 637.

⁵ Loftus, *Travels and Researches in Chaldea and Susiana*, 1857, pp. 263 ff.

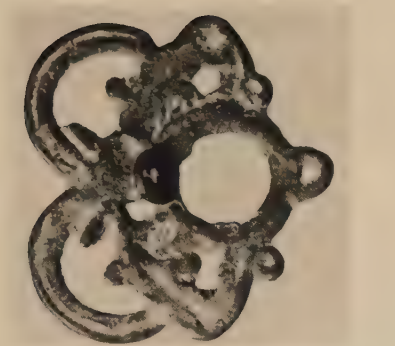
⁶ Legrain, pl. 15, 48; *S. P. A.*, iv, pl. 43 A.



a. Bronze no. 12



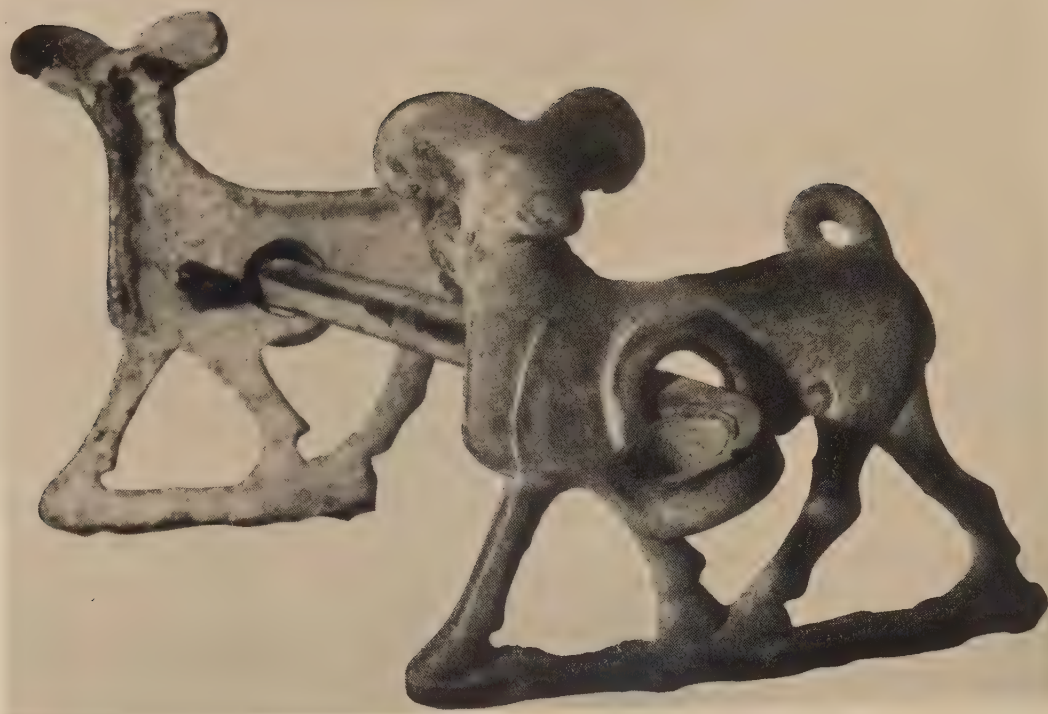
b. Bronze no. 13



c. Bronze no. 14

Harness rings (*a, b*), and horse bit (*c*)

Archaeologia, Volume 88, published by the Society of Antiquaries of London, 1940



a. Bronze no. 15



b. Bronze no. 16
Horse bits

Very few metal axe-handles have been found in Luristan or indeed in Western Asia in general. In proportion to the battle-axes known their number is infinitesimal, which suggests that they were only used for the ceremonial arms of tribal chiefs or military commanders.

C. Harness Rings

11. D. 5.3; th. 0.4-0.5 (pl. LXXIII, *e*).

Decorative bronze in the shape of a six-spoked wheel. The felloe is fairly thick and broad, the spokes and hub—the latter has a relatively large diameter—are thinner and narrower. The felloe is decorated with two figures of couchant animals, placed symmetrically at a certain distance and facing one another. They are represented in a simplified form. The trunk is formed by a segment of the wheel, to which are attached two separate parts—the hindquarters consisting of rump, paws, and tail, and the forequarters consisting of the neck with the adjoining part of the back, the paws, and the head. The long tail is turned upwards, while the paws are stretched out forwards and grasp the wheel from both sides. The clearly indicated claws and the well-observed and cleverly emphasized litheness of the body point to a beast of prey, namely a maneless lion, but the stylized head with its strongly developed muzzle and abnormally large eyes and ears shows little likeness to the living beast. The whole figure, which is not without individuality, gives an admirable representation of a lion crouching to spring.

Similar bronzes in the form of seven- or eight-spoked wheels with a plastic decoration of two lions lying confronted are at Philadelphia,¹ and Tehran.² Both objects are of approximately the same dimensions as 11, but in them the stylization of the animals is more advanced.

12. H. 7.5; lower br. 7.2; least th. 0.4 (pl. LXXIV, *a*).

On the three sides of a six-spoked wheel, constructed in the same way as 11, is grouped a composition, the axis of which is formed by the head of an *argali* (mountain ram), in frontal view, and placed in the middle above the wheel. This animal is a native of the mountain regions of Īrān and often occurs in the hunting scenes depicted on Sāsānian metal vessels, see, for instance, specimens of the fifth century A.D. in the State Hermitage, Leningrad, and the Metropolitan Museum, New York.³ The Luristan artist has in general truly felt, even if he has exaggerated, the characteristic features of this animal—the elongated muzzle with a slight furrow indicating that the mouth is half open, the long pointed ears, placed symmetrically with the broad horns rising between them in a mighty arch. Oblique furrows are repeated along the whole length of the horns in order to imitate the natural notchings. The eyes are plastic. Across the forehead run three horizontal lines, probably indicating the abundance of the hair in that place. In *argali* rams the horns are so curved downwards as almost to form a circle. This striking feature has been omitted in bronze 12 for constructive reasons and the horns have been cut short at the point where they meet the heads of the two animals placed symmetrically on opposite sides of the wheel against which they lean with their paws. They have tails turned upward. The thin and elongated bodies are constricted in the middle by a belt

¹ Legrain, pl. 7, 26.

² Godard¹, pl. 36, 153.

³ Erdmann, *Jahrbuch der Preussischen Kunstsammlungen*, lxxv (1936), p. 207, figs. 7-8.

consisting of four parallel bands—a characteristic detail for the stylized lions in the Luristān bronzes. The long, thick neck is terminated by large, wide open jaws, and the skull is filled by an enormous plastic eye in the form of a disc in a circle. The mane, represented by lines on the neck, indicates that in this case, too, the animal is a lion. The disproportion between the individual parts of the animals, such as tail, paws, trunk, neck and head, is far more striking here than in 11, but none the less it does not take away from the impression they give of lithe ferocity.

In 11 front and back are both in relief, but in this case only the wheel itself, whereas both the ram's head and also the two lions have been left flat on the reverse. Further, the lions have been represented with only two legs each. On the ram's head a large suspension ring has been put at the place where the horns grow out of it.

In bronze 12 the individual constructive elements unite to form an harmonious whole, with an admirably conceived symmetry and a uniform line which is only slightly broken by the projecting ears of the lions. Necessary lightness is secured by the openwork. The object is a classical example of that skilful reconciliation of decorative ideas and utilitarian purposes in which the metal handicraft of Luristān excelled.

A number of similar Luristān bronzes are known,¹ which, however, differ one from another in their dimensions and stylization, in the position of the side animals, and in the treatment of various details. In most cases the composition is grouped round an empty ring: only in one specimen at Brussels² do we find a six-spoked wheel similar to that in our bronze 12. In some other cases, however, the ring contains the figure of the mythical hero.³

13. H. 7.0, br. 7.5, th. 0.5 (pl. LXXIV, *b*).

Around the main ring, at the bottom of which is a smaller one, is grouped a composition, the axis of which is formed, as in 12, by the head of a mountain ram placed in the middle and turned to the front. The representation of the head is very similar, and of the small differences in modelling the muzzle we need only mention the swelling below the horns corresponding to the ridges on 12 and intended perhaps to emphasize the structure of the skull. On the ring near the head the animal's paw (if it is a paw and not a hoof) is visible, which gives the impression that the ram is leaning on the ring with its right foreleg. The horns are cut off just after they have begun to turn inwards and at the point where they meet the two lions standing on either side of the ring with jaws open to attack the ram. The movement of the animals is well conveyed by their bent legs and by the inclination and constriction of their bodies. The lions' paws and the single paw of the ram, all of which are exaggeratedly large, grasp the ring vigorously. In other respects, except that they do not possess manes, the stylization of the lions conforms in general to the pattern which we have already met in bronze 12.

The subject of this piece, representing as it does a mountain sheep lying down and attacked by wild beasts, ensures great compactness of composition. The spaces between

¹ Griessmaier, p. 110, Nr. 161; Gadd², pl. xxx b; Gadd⁴, pl. xxix b; Fossing, p. 19, fig. 6; Dimand, p. 49, fig. 4; Deonna¹, p. 93, fig. 13; Godard¹, pl. xxxi, 114; Speleers¹, p. 77, fig. 5; *S.P.A.*, iv, pl. 39 E.

² Speleers², p. 87, fig. 18.

³ Rostovtzeff, pl. I, 5; *S.P.A.*, iv, pl. 41 C.

the individual animal forms and also between them and the ring are few and much reduced, with the result that the openwork character of the object is nearly lost.

On the reverse the bronze is flat except for the lower part of the lions' tails and the small ring. In the surface there are numerous concavities as well as furrows all along the horns. In this respect both casting and finish are less careful than in 12.

On the reverse there is a suspension ring under the ram's head.

Only one other Luristān bronze of this type is on record. It is in the Institute of Arts, Detroit.¹ The composition is looser and the small ring under the main ring has been partly broken off.

All three specimens (11-13) have certain elements in common and must be considered as a single group. As regards the plastic decoration, each bronze has a pair of confronted lions, but the positions in which the animals are placed vary. In two cases (12-13) the position depends on the central motive, namely the ram's head, with which the lions at the sides are structurally connected. This motive is not to be found in the first specimen.

The plastic decoration forms a ring round the wheel which is either empty (13) or filled with spokes (11, 12). This is not a fundamental difference, as among specimens of the same type we meet both varieties of wheel, as was pointed out in the description of 12. It must, however, be added that up to now no bronzes of group 11 are known with empty wheels nor any of group 13 with spoked wheels.

Finally, attention must be called to the fact that in 11 the relief is two-sided and has no suspension ring, whereas 12 and 13 have one-sided reliefs and a suspension ring on the reverse.

We must remark that there are other varieties of Luristān bronzes of this category which are not represented in Mr. Savery's collection. For instance, in specimens at Brussels,² and Berlin³ the plastic decoration of the six- and eight-spoked wheels is composed of a group of two confronted lions with their jaws extended towards the mythical hero between them. These bronzes are flat on reverse and have their suspension rings under the head of the hero.

The common features of the group of Luristān bronzes to which 11, 12, and 13 belong are to be found in certain *motifs* of the plastic decoration and also in the use of a wheel, whether empty or spoked, as a fundamental structural element. The differences in the dimensions are so trifling that we may assume all these bronzes to have been intended for the same practical purpose. They are so heavy that I doubt whether they were worn by women as pendants. It is more probable that they were used to decorate horse-trappings, being hung on the harness in such a way that they danced freely with the movement of the horse. In cemetery B of Siyalk (c. 850-750 B.C.)⁴ a cylinder seal has been found with engravings of an armed rider. The trappings of his steed are rich, and include a pendant hanging on the chest, but the design is so summary that we cannot identify it with the Luristān finds. They are original products of the Luristān workshops, which have so far not been found anywhere else in the Ancient East. The use of ornamental metal pendants to decorate horse-trappings was not, however, confined to

¹ Aga-Oglu, p. 84, fig. 5.

² Speleers², p. 103, fig. 30.

³ Moortgat², pl. iv, 8.

⁴ Ghirshman, *Revue des arts asiatiques*, x (1936), p. 36, fig. H, and *Syria*, xvi (1935), pl. XLIV, 2.

Irān. They are to be seen in the polychrome frieze from Ashur of the time of Tukulti Ninurta II (890-884 B.C.),¹ representing a charioteer. Bronzes 12 and 13 were certainly used for the same purpose in connexion with horse-trappings, and their differences in construction, arrangement, and style of plastic decoration are due rather to their having come from various workshops.

D. Horse Bits

In Mr. Savery's collection both types of Luristān bits are represented—the linked bit (14) and bits with a rigid mouth-bar (15-17).

14. This linked bit is composed of the following movable parts—two cheek-pieces and a linked mouth-bar, consisting of two rods joined to one another by rings like the links of a chain. The dimensions of the individual parts of the mouth-bar are as follows: rods without the rings, l. 13.6, th. 1.1; rings, d. 3.2, th. 0.9. The outer ends of the mouth-bar have the form of clenched fists, the thumbs of which are clearly visible when seen in profile. The fists are pierced for the passage of a ring (d. 4.7, th. 0.7) to which the reins were fastened. To the mouth-bar are attached cheek-pieces, slightly bent in the middle and there broadening out round the circular holes, through which the mouth-bar passes. Cheek-pieces, l. 20.8, th. 0.8 just before the ends and 2.7 round the central opening. The ends are flattened out and at a certain distance from them are placed rings for fastening the split straps of the bridle. Total length of the bit 30.7 (pl. LXXIV, c).

Several Luristān bits with a linked mouth-bar terminating in human fists are known. A specimen at Philadelphia² only differs from ours in its dimensions; other specimens, however, differ in a number of points.³ The mouth-bar ending in a human fist is also found outside Luristān, for instance, in Egyptian bits from al-Amarna (XVIIIth dynasty)⁴ and in a bit from the hoard of Kvemo-Sasirethi in Georgia (twelfth century B.C.).⁵

Bit 14 consists of four large pieces (cheek-pieces and mouth-bar) and two smaller ones (rings) of bronze, none of which can be detached from the whole without damage. It is not composed of parts executed separately, as is the case with bits 15 and 16 which can be taken to pieces; it must therefore have been cast piece by piece *en cire perdue*, just as bronze chains were cast. When one part of the bit was finished, the workman imposed on it a wax model of the next to form a kernel for the clay mould for the casting. This laborious process was repeated for each part of the bit until all had been cast. The fact that such complicated objects as bit 14 were produced in considerable quantities in Luristān is another proof of the local workmen's great technical skill in casting.

All the linked bits from Luristān are constructed on the same general lines as 14. In some of them the cheek-pieces, instead of having rings, are pierced with oval openings.⁶ We can obtain an excellent idea of the working of such bits from Assyrian bas reliefs of the ninth-seventh centuries B.C.,⁷ in which—but only by an artistic licence—they are represented in a slightly simplified form without the central ring.

¹ Andrae, *Das wiedererstandene Assur*, 1938, pl. 65 a.

² Legrain, pl. xxi, 57.

³ Moortgat², pl. iv, 9; Gadd², pl. xxx e; *S. P. A.*, iv, pl. 39 A.

⁴ Wolf, *Die Bewaffnung des altägyptischen Heeres*, 1928, pl. 19, 1; Popplow, *Pferd und Wagen im Alten Orient*, 1934, p. 70, fig. 46; Wiesner, *op. cit.*, pl. II, 3.

⁵ Nioradze, *E. S. A.*, vii (1932), p. 90, fig. 10.

⁶ Przeworski², p. 16, fig. 11.

⁷ See *S. P. A.*, i, p. 257, fig. 53.

The construction of the bits with rigid mouth-bar is less complicated. They consist of three parts only—two identical cheek-plaques and the bar to which they are attached. Specimen 15 represents a complete bit of this type, while specimen 16 was deliberately taken to pieces in order better to exhibit the details. In section the rigid mouth-bar may either be a square with blunted angles (15) or round (16). The ends are hammered out into bands which are then rolled into loops, turned in opposite directions. The rolling into loops was sometimes done after the bar had been passed through the cheek-plaques, for instance, in bit 15, where the plaques cannot be removed from the bar. Dimensions: l. of the bar 16.6 (16) and 20.2 (15), th. 0.9 (15) and 1.0 (16), d. of the loops 0.9 (15) and 1.2 (16).

The loops of the mouth-bar served for the attachment of the reins while the split straps of the bridle were fastened to small rings on the cheek-plaques. As a rule there are two such rings on the back of the animal forming the cheek-plaque (16, 17), but cases occur, e.g. 15, in which only one ring exists there, while the second is concealed on the reverse. Similarly the reverse of the plaque is cast with a pair of points. When the rider pulled the reins, the cheek-plaques, which lay close to the horse's mouth, moved and the points pricked him in the cheek. Further, the cheek-plaques, as well as the cheek-pieces of the linked bits (14), prevented the bits from slipping out of the animal's mouth and, thanks to their weight, were specially adapted for directing his movements with one hand only as was necessary in the case of an armed rider. In riding the horse with one hand the reins of unequal length were no impediment on account of the different position of the two loops on the mouth-bar. Bits of this type, which must have been very trying for the horse, are only known from Luristān. Cheek-plaques in the form of an eight-spoked wheel with four points occur in the already quoted bit from al-Amarna (see p. 250), the mouth-bar of which is, however, provided at one end only with a ring for fastening the reins. This bit was certainly intended from the first for one-handed riding.

Some monuments of ancient Oriental art show us that this way of riding was, in fact, widespread there. Both on the previously mentioned seal from Siyalk (see p. 249), and also on bas-reliefs of the tenth and ninth centuries B.C. from Upper Syria (Zencirli,¹ Tell Halaf²) the mounted warrior holds the reins in one hand and his lance in the other.

The Luristān bits with rigid mouth-bar only differ from one another in the form and composition of the cheek-plaques, which give them a decorative character. Most of these plaques have the form of animals, e.g. our nos. 15–17.

15. Cheek-plaques in the form of a moufflon *passant* represented in profile and treated in the flat except for the frontal head with its developed horns. The two plaques are of practically equal dimensions. One, h. 9.4, l. 10.5, and th. 0.6, is well preserved. The other, h. 9.6, th. 0.6, has lost part of the rump, one hind leg together with a piece of the ground on which the animal walks, and the small rings (pl. LXXV, a).

Other bits with cheek-plaques in the form of a moufflon are known, e.g. one at Philadelphia.³ In it, however, the body is lither and the opening for the mouth-bar takes

¹ Luschan, *Ausgrabungen in Sendschirli*, iii (1902), fig. 138, pl. 44 a.

² Von Oppenheim, *Der Tell Halaf*, 1931, pl. 18 b.

³ Legrain, pl. 19, 54. Further specimens: Przeworski, *E. S. A.*, x (1936), p. 75, fig. 2; Rostovtzeff, pl. 4, 3.

up its whole breadth. The head is distinguished by the more accurate modelling of the mouth and of all details. The horns are separated from the head and from the ears, are larger and strongly recurved, and have also furrows, absent in 15.

The two cheek-plaques of bit 16 and a solitary plaque (17) of the same type are in the form of a horse.

16. One of the plaques is undamaged, in the other the tail of the horse and part of the ground line have been broken off. Dimensions: l. 13.4, th. 0.6-1.0 (both plaques), h. 10.4 and 11.1 (pl. LXXV, *b*).

17. Well preserved. Dimensions: h. 8.4, l. 12.3, th. 0.5 (pl. LXXVI, *a*).

The horse is a common *motif* in the cheek-plaques of Luristān bits. In many cases it is shown with a long tail reaching to the ground, suggesting a donkey rather than a horse.¹ Furthermore the horse is always, e.g. in 16 and 17, represented in profile. Our bits represent a special type of horse which does not occur on any other cheek-plaques. They are, therefore, of some importance for the study of the horse-breeds of ancient Luristān. In view of the part which, as previously explained (see pp. 233, 234), the horse played in Western Īrān, it would be worth while for specialists to take up this interesting problem.

Horse 16 in a standing position belongs to a short breed: it has short legs and, owing to the lack of skill of the workman, looks decidedly clumsy. The body is too long and has a rectangular shape. The neck is thick and long and the head relatively small. The opening of the mouth is slightly indicated; the large eyes are rendered by two circles with a central disc; the ears are small and lie low; the mane is short. Were it not for the furrows which emphasize the curling hair, it would look as though an uninterrupted thin edging ran from the head along the neck, back, and rump down to the ground line. Double bars mark the place of the hocks, while the hooves are scarcely indicated.

Horse 17 makes a better impression: the inclination of the body and the head shows that it is grazing. The head and the ears are small; the mane is indicated by a stripe on the neck. The eye was probably originally represented by an engraved line, now invisible under the patina. The treatment of the body is more plastic and realistic: all details of the legs are indicated.

The horses on both plaques (16, 17) wear collars, ending below in a little bell or pendant such as we see in bits in the Baron von der Heydt collection, Vienna, and at Philadelphia.² In horse 17 the collar is formed by a double, obliquely furrowed band, representing probably a rope. The surface of this plaque has been embellished with linear ornaments, so delicately engraved that in some places they are scarcely to be detected under the light green patina. On the neck above the collar are two sets of parallel lines, while two more such lines each occur below and above the hocks, pasterns, and hooves. The articulation of the shoulder is also emphasized by parallel lines and hatchings. Finally, the rump has been decorated with a rosette as in the specimen at Philadelphia.³

¹ For instance Godard¹, pl. 44, 172; pl. 46, 176.

² Legrain, pl. 18, 52; pl. 19, 53; Griessmaier, p. 108, Nr. 158.

³ Legrain, pl. 18, 52. For the symbolic value of such a rosette in Luristān art see A. Roes, *Revue archéologique*, xii (1938), pp. 173 ff.



a. Bronze no. 17



c. Bronze no. 19



b. Bronze no. 18



d. Bronze no. 20



e. Bronze no. 21



f. Bronze no. 22



g. Bronze no. 23



h. Bronze no. 24

Cheek-plaque (a), decorative objects (b, c, d), and supports (e-h)

Archaeologia, Volume 88, published by the Society of Antiquaries of London, 1940



a. Bronze no. 25



b. Bronze no. 26



c. Bronze no. 27



d. Bronze no. 28



29

30

31

32

33

34

e. Bronzes nos. 29-34

Finials (a-d), and pendants (e)

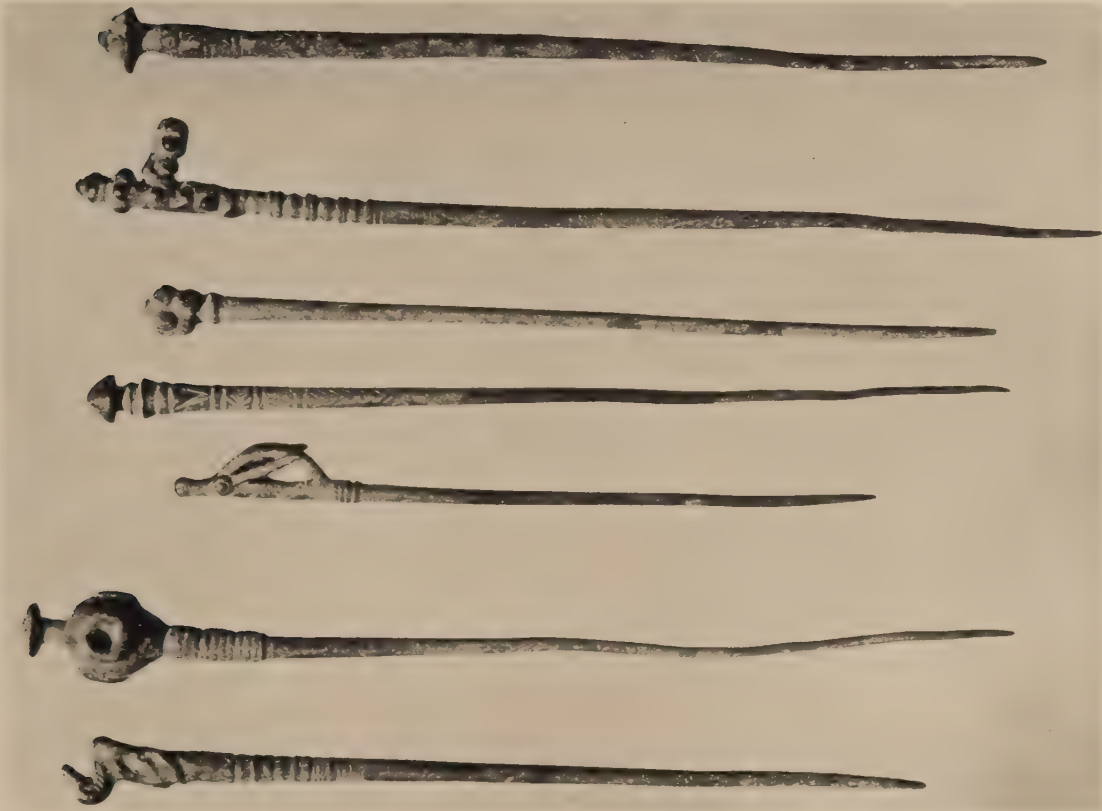


back



front

b. Bronze no. 42



41

40

39

38

37

36

35

a. Bronzes nos. 35-41

Pins



a. Bronze no. 43



b. Bronze no. 44



c. Bronze no. 45



d. Bronze no. 46



e. Bronze no. 47



f. Bronze no. 48

Pin head (*a*), armlet (*b*), bracelets (*c*, *d*, *e*), and vessel (*f*)

In all these cheek-plaques (15-17) the opening for the mouth-bar is in the middle of the animal's body and has a plastic frame. The ground on which the animals either move or stand is formed by a line of greater or lesser thickness. On the reverse the plaques are mostly unfinished; the surface is not everywhere uniform as the bodies and, in the case of the horses 16-17, the heads are hollowed out, to economize bronze and to diminish the weight of the bits.

E. *Decorative Objects*

In this place I am grouping three different bronzes (18-20), the purpose of which is not entirely clear.

18. A small tube, l. 9.5, d. 1.1. The wall of the tube is relatively thick and the passage narrow; the plastic decoration is rather rich. Parallel lines run round it, four at the lower extremity and three about two-thirds of the way up. Above are two faces with prominent, straight noses. The open mouths, not very large, the plastically emphasized cheeks, the eyes represented by two lines with furrow between them, and finally, the pair of sideways-projecting ears, each ear serving for both heads, all combine to produce a very characteristic whole. Above the heads two strings run round the tube and are probably to be regarded as a simplified indication of the hair-dressing. The end of the tube has the form of a truncated cone with the surface divided by seven vertical incisions; it represents a head-dress of some sort, quite similar to that of no. 25 (pl. LXXVI, *b*).

No. 18 was perhaps set on a wooden handle and probably formed the top of some object denoting rank or office, borne on solemn occasion. The bifacial *motif* is frequent in Luristān bronzes, cf. nos. 25 and 26. In the present instance it has been applied and treated in an original manner but in conformity with the form and destination of the object.

A number of similar bronzes is to be found in various collections¹ but even those which present the bifacial *motif* differ in details from our no. 18.

19. Square openwork object (h. 8.6, br. 9.3, th. 0.3) set on an iron pin, as can be well seen on the reverse. The lower part of the pin has been broken off. The bronze has a dark green patina, while the iron is corroded by rust (pl. LXXVI, *c*).

The frame of the object is an imitation of a double rope. Within is inserted a composition, the axis of which is formed by a mythical hero who takes up the whole of the height. This figure has been treated in flat relief except for the head with its large and prominent nose. The eyes, cheeks, mouth, and chin are indicated by lumps. The hair runs out on both sides into two large, upturned curls. In relation to the head and to the abnormally long and broad neck the body is short. The hemispherical breasts show that the upper part of it is naked, while the lower part is clad in a robe which reaches to the ankles and is held by a quadruple belt. The feet, which emerge from under the robe, are represented in the same manner as animals' paws. The thin arms are relatively short down to the elbow but are then so enormously elongated that they meet the paws of the animals on the upper border of the frame. The hands are not indicated but we realize that the hero holds the beasts by their hind-paws.

¹ Godard¹, pl. 58, 210-12; Rostovtzeff, pl. 5, 2; Speleers⁶, pp. 43-4, fig. 23a-b.

The hero is in frontal view, the animals in profile with their heads downwards. In spite of the advanced stylization we can guess that they are lions. Neck and body are represented as of equal thickness. The wide open jaws and the large, plastic eyes give the lions an expression of ferocity. The clearly indicated haunches pass into long and thin stick-like legs, terminating in paws which touch the upper and lower borders of the frame. The tail is rolled into a spiral and forms a large disc.

Besides this favourite composition of Luristān art, namely, the struggle of a mythical hero with wild beasts, 19 includes *motifs* to fill out the space and connect the individual parts of the human and animal figures with one another or with the frame. Such are the bars joining the tails of the lions to the upper border of the frame, the spirals between their heads and the sides, and others between their feet and the hero's body and arms, the bands running round the hero's arms and those round the animals' feet. In accordance with the principle of symmetry which runs through the composition, all these elements occur in pairs and help to strengthen the structure of the object.

No. 19 has suffered a number of small injuries which prove how fragile it is: with its dismembered figures and numerous thin parts. On the right-hand side, part of the animal's front leg has been broken off; the band going round it and the spiral by the lion's head have been damaged. On the left-hand side, a piece of the side frame has been chipped off and the bottom of the frame is broken at a point near the paw of the animal. The bronze has not been finished off behind and is rough in places. The back is very nearly flat.

Several Luristān bronzes of this type have been preserved;¹ all of them are constructed on the same lines, but they differ from one another in the central composition, and no specimens resembling 19 have been published.

These bronzes were not garment pins, as has been sometimes supposed. Their weight is opposed to such a use. The iron pin served to fix them to a wooden staff, and a cord or strap was passed through the little rings in order to secure them more firmly. They may have been cult standards or marks of rank but neither their form nor their composition enables us to decide for certain to what use they were put.

20. This object (l. 3.7, br. 2.9, h. 1.8) is based upon a slightly elongated ring in diameter varying from 2.3 to 2.6. Behind are two acorn-shaped protuberances and on the ring stand three separate creatures, which are, however, so summarily represented that it is difficult to decide their species. To judge by the form of the body and head, the large horns and the upturned tail, which in one case has been broken off, two of them might be oxen or cows. These two figures are on the sides of the ring; between them is a small bird, probably a dove (pl. LXXVI, *d*).

Only one other similar Luristān bronze is known—in the Metropolitan Museum, New York²—but instead of the projection behind it has a smaller ring. Further, its plastic decoration represents a wild boar attacked by a dog or other animal. Neither of these bronzes was intended for use as a pendant; they were probably set on a wooden shaft, but nothing more can be said as to their function.

¹ Dussaud¹, p. 257, fig. 16; Godard¹, pls. 37-8, 157-9; *S.P.A.*, iv, pl. 40.

² Dimand, p. 49, fig. 2.

F. *Supports*

Under this heading are to be classed the following four bronzes :

- 21. H. 18.4, upper d. 2.9, lower d. 2.6, th. of the metal 0.3 (pl. LXXVI, *e*).
- 22. H. 16.2, upper d. 3.0-3.1, lower d. 3.2, th. 0.5 (pl. LXXVI, *f*).
- 23. H. 9.4, upper d. 2.4, lower d. 3.4, th. 0.5. Metal almost black, little patina (pl. LXXVI, *g*).
- 24. H. 8.0, upper d. 2.1, lower d. 2.5, th. 0.4 (pl. LXXVI, *h*).

All these bronzes have the same form, namely that of a hollow bottle which may be slender (21) or dumpy (22, 23) with a narrow, more or less elongated neck, terminating above in a lip which is generally quite flat and only rarely has a slightly convex upper surface (24). The plastic ornamentation is very scanty and simple. It may take the form of a single band or half-round beading (24), or of groups of such bands (21, 22), on the neck or round the base of the bottle (21-3). No. 21 has a decoration of this sort on its bottom rim consisting of one fairly thick interrupted beading and four narrower continuous bands, which, taken together, give a stepped profile. A similar decoration but with the interrupted beading set in the middle of the four narrower continuous bands occurs on the lower part of its neck. This decorative *motif* of an interrupted beading is rarely met with in Luristān bronzes. The base of no. 22 has four parallel bands each narrower than the one below; the neck is strengthened by a bead at the point where it joins the body and is also decorated one-third of the way up with two heavy beadings as ornament. The neck of 23 has no plastic decoration but two parallel bands of different breadths run round its base. The ornamentation of 24 is confined to a thick band half-way up the neck and another band round the base. The profiles of the bottles are very varied—concave (21), narrowing towards the base (22), pot-bellied (23), or slightly constricted (24). These supports had no bottom. Their necks are pierced and the upper orifice of the channel forms an opening in the flattened lip. Through this channel passed the pin of the object which these bottles were intended to support.

Many bronzes of this kind are in numerous museums and private collections.¹ Their form is generally the same and such differences as occur are to be found only in dimensions, proportions, profile, and plastic or engraved decoration. Some of them are exhibited separately, others in combination with various finials, but these associations are mostly hypothetical and not based on the circumstances under which they were found, usually obscure in the case of Luristān bronzes.

G. *Finials*

Under this term I understand those bronzes (25-8) whose functional connexion with bottle-shaped supports, such as just described (21-4), is more or less established.²

¹ Speleers², p. 98, fig. 20; Dussaud¹, pl. XLII quater, 9; Legrain, pl. III, 7-9; Przeworski², p. 20, figs. 16-17.

² Godard calls these 'Funeral Statuettes'; Dussaud in *S.P.A.* 'Talismans'. 'Finial' would seem a non-committal term.

25. H. 12.0, br. 6.1 (pl. LXXVII, *a*).

26. H. 17.2, br. 6.5 (pl. LXXVII, *b*).

Both these bronzes represent a well-known type occurring in many variants in Luristān. The central part of the composition forms a round trunk, being the body of the bifacial creature in combat with two fantastic animals at its sides. This is—expressed in a very individual form—the same iconographic conception which we meet with in nos. 19 and 42. It is to be found all through the art of Luristān, and its origins reach back to the earliest phases of art on the Persian Gulf. In the glyptic art of Sumer, where this *motif* enjoyed special favour, the hero struggling with wild animals was never represented bifrontally. The bifacial demon, known as Usmu, servant of the god Ea, first appears on the Mesopotamian bas-reliefs and seals in the times immediately preceding the Akkad dynasty (twenty-sixth century B.C.). He is there pictured with two long beards and is similarly characterized in the latter Syro-Hittite seals. At both epochs Usmu is always represented as participating in cult scenes. In the second half of the second millennium B.C. the glyptic art of Upper Syria and Cyprus knows of a being with two identical human or animal heads, who is usually represented as a tamer of wild beasts.¹ An analogy between these glyptic compositions and the Luristān bronzes clearly asserts itself and it is quite possible that the mythical hero, who fights with wild beasts and is represented in the former art as two-headed and in the latter as bifacial, is in reality identical. This appears all the more probable because in the period from 1400 to 750 B.C. there are other links between Luristān and Upper Syria. It remains, however, for future investigators to establish whence both regions borrowed their similar mythological and iconographic conceptions. Probably Northern Mesopotamia was the common source. It should be observed that a bifacial creature as a decorative *motif* appears also in other Luristān bronzes, as for instance 18.

In many details 25 and 26 resemble one another but they differ in treatment and composition. The human faces have prominent noses, overlarge and projecting eyes in form of circles with central discs, and heavily emphasized chins. The head is surmounted with a strange head-gear, probably a conventionalized tiara. In 25 it has the form of a truncated cone with eight vertical furrows, just as in no. 18. The large and prominent ears serve for both faces. No. 26 is remarkable for the long thin arms with which the hero grasps the throat of the open-mouthed beasts. Both form and mane indicate that these heads are those of lions, but severely conventionalized. The elongated necks of the animals are decorated in their lower part with small horses' heads, turned outwards and provided with projecting eyes and a toothed mane. Double bands are to be seen on the jaws of animals above the muzzle, on the necks near the trunk, on the horses' heads at the point of attachment, and also on the body and neck of the hero. This is also the case in a number of similar examples of this class.² All these bands are purely decorative with the exception of those on the neck of the beast-taming hero, which represent a double

¹ The relevant material, both monumental and epigraphic, as regards two-faced and two-headed deities in the Ancient Near East has recently been collected and examined by Furlani, *Miscellanea A. Deimel dedicata = Analecta Orientalia* 12 (1935), pp. 136 ff. See further Ph. Ackerman, *Bulletin of the American Institute for Iranian Art and Archaeology*, V (1938), pp. 216 ff.

² Moortgat², pl. v, 11; Przeworski², p. 19, fig. 14; Fossing, p. 17, fig. 3; Deonna¹, p. 95, fig. 14; *Bulletin of the Minneapolis Institute of Arts*, xxi (1932), p. 145; Dimand, p. 48, fig. 1; Legrain, pl. 11, 2.

necklace. In no. 25 the animals are attacking the hero; their jaws are turned towards him and they are seizing his neck with their paws. We meet the same conception in a bronze in the Louvre.¹ In this case the heads are those of dragons with prominent ears, a horn, and plastic eyes.² In 26 the trunk is surrounded with a broad rope-like belt just below the place where the necks of the animals meet it. Still farther down is a belt of three parallel lines, such as is also to be seen on no. 25, where the oblique incisions point to a rope. In both specimens (25, 26) the passage to the lower part of the trunk is closed by a transverse projection, and at this point the rumps of the two animals stand out on both sides and meet forming a sort of broad shield. Each of the animals is supported by a long tail with its end curled round and an unnaturally bent hindleg with carefully indicated paws (25) or by the tail only in no. 26 in which the cross-bars connecting the two tails with the central shaft are simplified legs. The lower part of 25 is more compact, whereas in 26 we have an open-work construction round the central trunk which is here narrower than in the upper part. At the very bottom it enlarges again into a short tube with a projecting rim. The central part of the trunk where the girdle goes round it may be understood as combining the figure of the hero with the bodies of the two confronted and erect animals.

These finials show in a high degree the amazing skill with which the Luristan craftsmen gave a decorative form to their products. The union of the practical and the decorative has here been achieved in a manner which, though quite peculiar, is in accordance both with the artistic traditions of Western Asia and also with local tastes. The limbs of the beasts are grouped symmetrically so as to form an harmonious whole round the central trunk, which is at the same time the spinal column of the construction. The two-sidedness of the plastic decoration, the reduction of the human form to a round pillar in which head, neck, and body all have the same circumference, finally the bifaciality of the figure, are all conditioned by the use to which the object was put. Sometimes the animals' long necks are stayed by the central figure's arms grasping them (26). In these original bronzes we are face to face with that individual and logical inventiveness of the Luristan craftsmen, which enabled them to express their artistic ideas without failing to give to utilitarian objects the necessary durability and relative lightness.

It would seem that fittings like 25 and 26 were in use in Luristān for a longish period. Manifest differences in the treatment of various details are to be found among them. In time we shall succeed in discriminating stylistic and chronological groups; even now we can fix one older group. It is represented by a bronze of the twelfth century B.C. in the hoard of Maku,³ and by kindred specimens in the collections of Mr. Savery (25) and General Cz. Jarnuszkiewicz, Warsaw, the Louvre, and in the Museum für Kunst und Gewerbe, Hamburg.⁴ All these bronzes are distinguished by an identical rendering of anatomical and iconographic details and by the simplicity and scantiness of the decorative elements. These characteristics are not to be found in other pieces of this type, e.g. in 26, which are slenderer, and have more plastic decoration, in a word, are more baroque.

¹ Dussaud¹, p. 257, fig. 17; Rostovtzeff, pl. 2, 1; Przeworski, 'Dzieje i kultura starożytnej Persji,' *Wielka Historia Powszechna*, I, Warsaw, 1932, p. 739, fig. a.

² See also Przeworski², p. 19, fig. 15.

³ *S. P. A.*, p. 253, fig. 52.

⁴ See note 1 and Przeworski, as there cited, p. 739, fig. b.

These latter pieces come not merely from another workshop but from a later period, in any case from the first quarter of the first millennium B.C.

27. This piece consists of two confronted and erect panthers. Their hind feet are supported on a small horizontal ring, and they grasp a slightly larger one in their fore-paws. H. 12.3, br. 3.5, th. 1.6 (pl. LXXVII, *c*).

The relatively large heads of the animals have projecting ears, large and prominent eyes, and well indicated nostrils. Long tongues protrude from their wide open jaws. The long and curved neck has a mane indicated by horizontal notchings. The body is short and thin: both hind and front legs are extended; the articulation of the shoulders is emphasized by an incision, the tails are long with curled ends. The liveness and ferocity of the panther have been well grasped, and indeed too strongly accentuated in certain details and in the disregard of proportions. Although the animals are much dismembered, the composition is none the less compact, and groups itself around the structure connecting the two rings, in relation to which the tails, necks, and heads of the beasts are only additional decorative elements. This structure forms a frame for the tube passed through the rings. Parts of such bronze tubes, either single or double, are preserved in some pieces of this type;¹ loose tubes are exhibited at Philadelphia.²

Pieces of this type were very general in Luristān,³ and some of them had an even richer plastic decoration.⁴ Nearest to our no. 27 is a bronze at Geneva.⁵

28. This piece is composed of two confronted ibexes with their fore and hind feet resting on two rings. Total h. 14.5, h. of the part between the rings 6.7, br. 8.4, th. below 1.6 (pl. LXXVII, *d*).

Each ibex consists, as it were, of two separate parts—first, the short and thin body with the long hind legs forming its direct prolongation and the shorter forelegs which are only rendered in relief. These parts of the body form a convex arch to which is attached the twisted rope-like tail, also connected with the lower ring. The second part begins with the neck, which is curved in a powerful arch and notched along the back, probably to represent the hair. The long, upstanding ears, the eyes, as usual in the form of a plastic disc within a circle, the elongated muzzle with the goat's beard, finally the abnormally long horns, turned back at the apex, and with their thickenings rendered by knobs, all serve to characterize the animal very expressively. The ibex is being attacked by a panther of much smaller dimensions, standing on its back with forefeet digging into its neck and the hind feet into the root of the tail. Each pair of the panther's feet are united to form one member. The curved tail, tongue hanging from the jaws, small ears and round eyes complete the characteristic picture of a panther.

This piece presents in an individual conception one of the favourite *motifs* of

¹ Moortgat², pl. VI, 15; Godard¹, pl. LIII, 199; Kunstgewerbemuseum Zürich, *Ausstellung Iranischer Kunst*, 1936, p. 25; Yetts, *E. S. A.*, ix (1934), p. 252, fig. 8; Rostovtzeff, pl. 2, 4.

² Legrain, pl. IV, 10-12.

³ See Hudson, p. 14; *An Illustrated Souvenir of the Exhibition of Persian Art*, 1930, 3rd ed., p. 12, Nr. 21 NN; Griessmaier, p. 108, Nr. 159.

⁴ Fossing, p. 17, fig. 2; Godard¹, pl. LIII, 197; *S. P. A.*, iv, pl. 45 B.

⁵ Deonna¹, p. 97, fig. 15.

Luristān art—fighting beasts. The artists of that country not infrequently contrived to seize and give masterly expression to different dramatic moments in this struggle, but in the present instance the *motif* has come to have only a decorative significance. The advanced stylization, the conscious neglect of proportions in all three dimensions, the dismembering of the animal forms, the skilful use of curved lines, all combine with a feeling for harmony and rhythm to produce an extremely original and decorative whole.

Many pieces of this type are in existence: they range from very modest ones, consisting of ibexes only,¹ often treated rather superficially, to complicated compositions more or less richly endowed with additional components.² No. 28, whose additional plastic decoration is limited to the little panthers, occupies in this respect an intermediate position. The panthers, not found on any other example, suffice to differentiate it from all kindred bronzes.

All four pieces (25–8) have unfortunately been separated from the objects with which they were once united. The methods of affixing them was not always the same. In some cases, e.g. 25 and 26, they were fixed on the bottle-shaped supports like nos. 21–4. Such must have had long pins, passing through the whole length of the trunk, which is in fact a long tube, as seen in 25 and 26. Few, however, are the specimens which have preserved their pins, e.g. at Berlin.³ Therefore I presume that the fittings were affixed to the wooden base by means of a pin which passed through both the central trunk and the support. It is possible that they were affixed to the sides of the chariots, and served to wind the reins round.

It is less easy to understand the method of fixing such a piece as 27. It is probable that a pin passed through both tube and support, and attached the whole to some wooden object. The method of uniting support and finial is illustrated by a specimen in the collection of Mrs. Christian R. Holmes, New York.⁴ Perhaps finials of the type of 28 were mounted in a similar way, but we have no certain knowledge. In any case it seems doubtful whether pins such as 38 or 41 could have been used for this purpose. Scientific excavations would not only clear up this question, but also decide once for all what was the function of these Luristan finials. There is no evidence which justifies the attribution of a cult significance either to 27 and 28 or to bronzes of the type represented by 25 and 26, which, because of the mythical hero, have sometimes been incorrectly called idols or talismans.

H. *Pendants*

The six small bronzes 29–34 (pl. LXXVII, *e*), one (29) with a hole pierced through it, and the others (30–4) with suspension rings, served as pendants for personal ornament or amulets.

29. L. 3.6, h. 3.6, br. 1.1. The brown colour of the bronze indicates a large percentage of copper. A small piece has been broken off the near hind foot.

¹ Gadd⁴, pl. xxiv B; Moortgat², pl. vi, 14; Godard¹, pl. LIV, 202; Speleers¹, p. 88, fig. 23; Speleers², p. 69, fig. 31.

² Griessmaier, p. 110, Nr. 160; Moortgat², pl. v, 13; Deonna¹, p. 97, fig. 16; Dussaud¹, pl. XLII quinquies; Godard¹, pl. LIV, 203.

³ Moortgat², pl. v, 11.

⁴ *S.P.A.*, iv, pl. 44 A.

Ibex with long recurved horns. Eye in the form of a plastic circle; muzzle pointed; tail short and upturned; body almost rectangular; ears indicated by lumps on the horns. Three parallel lines round the neck. Hole pierced through the body. Small piece of bronze wire twisted spirally round the neck.

30. L. 1.8, h. 2.5, br. 0.9.

Duck schematically rendered without either feet, eyes, or other details. Suspension ring behind the neck.

31. L. 3.5, h. 3.7, br. 1.0.

Ibex treated more realistically than 29. Plastic eye, upturned horns, short, barely indicated tail, body relatively narrow, feet narrow and set far apart. On the neck three parallel ridges; on the back thick suspension ring.

32. H. 2.3, l. 3.4, br. 1.1 Bluish patina.

Hen sitting. Wings slightly expanded, and above them a suspension ring with its aperture towards the neck.

33. H. 3.3, br. 1.3.

Shod foot, ending in a motive of four faces so constructed that there is one plastic eye between each pair of noses. Above large suspension ring. Shoe indicated by double oblique incisions and a plastic point on each side of the heel, presumably representing straps and metal knobs.

34. L. 3.5, h. 2.5, br. 1.0.

Highly stylized horse, with toothed mane as in no. 26. Eye plastic; mouth open; two ridges on the neck representing a collar. The shortened forelegs make a projection recalling no. 43. Body accentuated by oblique notches on the left side. Suspension ring in the form of an arch connecting neck and back.

All these bronzes are made to stand, having either feet (29, 31) or a flat bottom (30, 32-4). They were produced in large quantities, and are known all over Western Iran. Bronze pendants in the form of animal figures and shod feet are known from the region of Hāmādān,¹ and some in the form of ibexes, like 29 and 31, occurred in the Maku hoard of the twelfth century B.C. (see p. 237).² Most, however, of the pendants of this kind come from Luristān. The variety of animals represented is striking.³ Ibexes, akin to 31, enjoyed special popularity;⁴ shod feet⁵ and a stylized cock, similar to 34,⁶ also occur in sundry variants. The published material does not, however, contain any pendants of the type of 32, which therefore enlarges our previous knowledge of this class of small monuments.

In Luristān a small bronze chain has been found with an attached pendant in the form of an ox-head, and this was presumably the usual way of wearing such pendants at that time. The little chains could be attached either to the girdle or to a garment, or even to a necklace. In the Maku hoard such a chain has also been found.⁷ In

¹ Herzfeld, *Ill. L. N.*, Nr. 4703 (1929), p. 983, figs. 5-6; Morgan, *Mission scientifique en Perse*, iv (1896), p. 251, fig. 158.

² Przeworski, *S. P. A.*, i, p. 251.

³ Godard¹, pl. xxx; Speleers², pp. 115-16, figs. 9, 10, 12; Dimand, p. 49, fig. 3; *S. P. A.*, iv, pl. 59 H.

⁴ Legrain, pl. vii, 31; Forrer, pl. 1, 1.

⁵ Legrain, pl. vii, 33.

⁶ Speleers², p. 115, fig. 9.

⁷ Przeworski, *S. P. A.*, i, p. 251.

pendant 29 the chain could have been attached to the wire twisted round the animal's neck.

I. Pins

All the bronze pins (35-42) have long and sharply pointed shafts, and served either to fasten the dress or to adorn the head or head-gear. They are very varied, both in form and in the ornamentation of their heads; among them 39, 40, and 42 represent hitherto unknown types.

35. L. 17.4 (pl. LXXVIII, *a*).

The head in form of the forepart of a duck is a direct prolongation of the shaft. The passage from the pin proper to the head consists first of a delicately engraved zigzag ornament, and then of three beads ornamented either with perpendicular lines or horizontal furrows. The beading passes into the bent body of the duck by means of two oblique wavy lines.

Identical pins with the forepart of a dove are in the Muzeum Narodowe, Warsaw,¹ at Berlin,² in the Louvre,³ and in the collection of Professor A. U. Pope, New York.⁴

36. L. 19.7, th. 0.5 (pl. LXXVIII, *a*).

The top of the shaft has three slightly swollen sections, round each of which run three parallel incisions. Next comes the egg-shaped head. On all four sides of this are hollows with raised borders, which must have contained an inlay, probably of the coloured semi-precious stones or pastes usually employed for this purpose in the Ancient East. The head is surmounted by a nail-like top.

Similar, though not identical, pins are known from Luristan,⁵ but are not common.

37. L. 14.1 (pl. LXXVIII, *a*).

The head is a prolongation of the shaft, being separated from it by a triple ridge. It is formed by the head of an antelope with extended neck. Plastic eyes in the form of a disc within a circle; long recurved ears; between them arched horns joined at their tips to the neck; much elongated muzzle.

All the known Luristan pins of this type are distinguished by the advanced stylization of the animal head.⁶ This applies particularly to the muzzle, which, on a pin at Philadelphia,⁷ resembles more a nail-head, thereby losing its natural form, which is admirably rendered in 37, and in a specimen in a dealer's hands.

38. L. 19.0 (pl. LXXVIII, *a*).

The small conical head has been set not directly on the shaft but on a short, thinner pillar with a double-convex profile. The shaft broadens out upwards, and in its upper third has an engraved linear ornament, consisting of groups of two parallel lines, the

¹ Przeworski², p. 23, fig. 22.

³ Godard¹, pl. xxxiii, 137.

⁵ Godard¹, pl. xxxiii, 121; Arne¹, p. 279, fig. 12.

⁶ Godard¹, pl. xxxiii, 132; Speleers², p. 101, fig. 26; Speleers⁶, p. 42, fig. 18; Forrer, pl. 1, 3; S. P. A., iv, pl. 60 H.

⁷ Legrain, pl. iv, 18.

² Moortgat², pl. vii, 19.

⁴ S. P. A., iv, pl. 60 K.

bands between which are decorated alternately with zigzag and herring-bone patterns, the latter applied either vertically or horizontally.

Some other similar Luristān pins¹ also have the shaft ornamented, but much less richly than 38.

39. L. 17·1 (pl. LXXVIII, *a*).

The head is clearly separated by a projecting moulding from the unornamented shaft. It consists of an agglomeration of ball-like grains, grouped in two horizontal layers, and crowned by a single grain. The whole is a quite good imitation of a bunch of grapes, as can be better seen if the pin-head is turned downwards. Nowadays the grape vine flourishes in some sheltered mountain valleys of the Zagros even up to a height of 1,700 or 1,800 m. In the absence of all other evidence this pin is the first, admittedly indirect, proof that the vine was cultivated in Luristān as early as about 1000 B.C.

It is curious that we have no pins with heads in the form of a bunch of grapes from other countries of Western Asia, not even from Anatolia, which is believed to be the homeland of the vine and of wine.² The present specimen is also a rare example of the use of vegetable motives in the art of Luristān.

40. L. 20·4: pin-head, l. 3·3; br. 2·0 (pl. LXXVIII, *a*).

In the upper part of the shaft is a delicately engraved ornament, consisting of double zigzag lines and two sets of three parallel lines each, filled with hatchings. Above are three beads decorated with vertical lines.

In the pin-head we can distinguish three connected animal forequarters. First there is a body, at the end of which is placed the head of an indeterminate animal. All we can see are the more clearly indicated muzzle and ears. Higher up a lion's head set on a thick neck goes off to one side horizontally. The ears, the eyes represented by concavities, and the open jaws are the only details in what is after all the not ill-grasped physiognomy of a wild beast. The third component part of the pin-head is also a lion, whose body forms a continuation of the first animal. The tiny head forms, as it were, a prolongation of the pin.

The discrimination of the animals is made more difficult by the round lumps which usually indicate ears or haunches, but sometimes have a purely ornamental significance. It is possible that the ring of such lumps round the body of the uppermost lion is meant to represent the mane.

Zoomorphic elements are employed very frequently, and in various forms in the heads of Luristān pins,³ but I have not met any similar example, either in respect of composition or stylization.

41. L. 18·4 (pl. LXXVIII, *a*).

The ornamentation of the upper part of the shaft is composed of the same *motifs* as in 39, but arranged in a different order. The shaft passes directly into the conical head. A Luristān pin of this type, but with a pierced shaft, is at Stockholm.⁴

¹ Godard¹, pl. xxxiii, 131; Legrain, pl. iv, 23.

² Götze, 'Kleinasien': Kulturgeschichte des Alten Orients, iii, 1, *Handbuch der Altertumswissenschaft*, iii, 1, iii, 1933, p. III.

³ Przeworski, *S. P. A.*, i, pp. 243-4.

⁴ Arne¹, p. 279, fig. 13.

This is one of the oldest forms of metal garment-pin in Īrān. It occurs already at Tepe Hissar I.¹ The Luristān finds are of course immeasurably younger. The engraved decoration indicates that we must place them at the end of the second or the beginning of the first millennium B.C. In 41 the execution is rather coarse, especially if we compare it with the delicate engraving on nos. 8, 35, or 40. No. 41 is, therefore, an excellent example of the longevity of certain simple types of personal ornaments which in Īrān lasted from the second half of the fourth to the beginning of the first millennium B.C. This phenomenon can be observed also in other countries of Western Asia, such as Anatolia.

42. L. 25.3 : pin-head, h. 7.7 ; br. 7.3 (pl. LXXVIII, *b*).

The thin shaft has suffered from crumbling in some places. Near the top it has been hammered out into a broad flat section, and then develops into the top, formed by a hollow moulding followed by a belt with triple incision. The element connecting the pin-head with the shaft is an ox-head in front view with the muzzle downwards. It is characterized by strongly indicated nostrils, prominent eyes, emphasized by engraved circles, not very large ears, and two vertical incisions between them to represent the hair. There are no horns. On either side of the muzzle we see a protuberance, probably to be interpreted as representing the forefeet. The artist has here presented in a simplified form an animal lying down with extended forelegs, exactly as in no. 13. The mythical hero, who dominates with his dimensions the centre of the head, must therefore be regarded as standing on the back of the couchant ox. He is represented in accordance with the iconographic tradition of Luristān art, and his head is adorned with a small pointed cap. The powerful horns standing out on either side—their tips have been broken off—symbolize supernatural strength and divine origin. The abundant hair falls in curls down the neck, the beard is indicated by a number of vertical lines. The small projecting ears, the eyes in the form of plastic discs in a circle, the large nose, and the small mouth complete the characteristic face of the hero. He is naked, as is indicated by the strongly emphasized breasts. A broad girdle has, however, been wound five times round his loins, as is shown by the delicate parallel lines. In the whole figure we are struck by the disproportion between the abnormally large head and neck, the short rectangular body, and the shapeless legs and arms. The legs are quite straight ; there are no feet, and the hands, which are not indicated, grasp the right forefeet of the attacking wild beasts. They are panthers stylized in the manner usual in Luristān art, cf. no. 27. Like the beasts in 19 they are represented in profile in contrast to the hero in frontal view. Their off hind feet stand on the ox-head and the near ones on the feet of the hero, while their off forefeet touch his body. The wide open jaws, the upturned and outward curled tail, and the long, extended neck render admirably the movement of the struggle, while the disproportionately narrow body, which is only about as broad as the arms and legs, emphasizes the litheness of the animals. Thick rings going from the neck to back and joining the tail serve to strengthen the weak construction, a weakness which has resulted in damage to the hero's head and to the tail of the left-hand panther.

From the widening upwards the pin-head is flat and unfinished on the reverse. The

¹ E. F. Schmidt, *Excavations at Tepe Hissar, Damghan*, 1937, pl. xvi.

head of the hero has been deeply hollowed out, the body less so. In this way bronze has been economized and the object made lighter. The thickness of the head reaches 0.3.

Owing to the grouping of the figures and their dismemberment the pin-head has the general form of an open-work roundel with deep indentations. Open spaces are numerous, and the individual parts are relatively thin and narrow, which secures for the pin the required lightness. In the form of the head it differs from the other rare Luristān pins in which the motive of the tamer of wild beasts occurs. A specimen at Brussels¹ also represents the three figures, the hero between two lions, but they are set on a broad transverse bar, so that the whole group forms a horizontal frieze. The composition is far looser, and owing to the adoption of the principle of isocephaly, observed in the cylinder seals, the figure of the mythical hero is less pronounced than in our no. 42. The latter is another instructive example of the freedom and inventiveness with which the Luristān artists contrived to handle certain well-worn *motifs* of their repertory, thereby giving an individual and original mark to each object they made.

43. L. 6.0, br. 1.6, h. 3.3 (pl. LXXIX, *a*).

This object is cast in a greyish and shining alloy of unknown chemical composition. The dark green patina which thinly covers most of the surface suggests the presence in it of a considerable percentage of copper.

The specimen is a pin-head, but the iron shaft has been broken off at the point of junction, leaving only a small piece in the hole in the animal's rump. Hence the marked traces of rust at this point. Although numerous Luristān bronzes of this type are known, only one—at Philadelphia²—has preserved the rather long iron shaft in its entirety.

No. 43 represents a fantastic animal with the body and head of a couchant horse. The form of the slightly drooping head has on the whole been well caught. The stylization has affected the large ears and eyes, the latter in the form of a plastic disc in a circle. From the forehead projects a horn with its point turned inwards. In proportion to the neck the body is rather small. The hindlegs point forward; instead of hooves they have divided paws indicated by incisions, and therefore belong to some animal other than the horse. The forelegs, bent backwards, are simplified to a projection which recalls certain pendants (34) and emphasizes the hock. It is noteworthy that even in a fantastic creature the harness proper to a horse has not been omitted; it consists of four separate parts, collar and belt round the neck and two girths across the back, indicated one by a triple, the other by a double ridge.

In contrast to the overwhelming majority of Luristān bronzes, in which the animal body is rendered too flat, no. 43 is distinguished by far better modelling. This appears, for instance, in the rounding of the horse's rump. Underneath, however, the bronze is quite smooth.

All the bronzes of this group represent similar fantastic animals,³ the fundamental part of which is a horse in the same position and with the same trappings. There are, however, considerable differences between individual specimens in the treatment of

¹ Speleers⁴, p. 43, fig. 25.

² Legrain, pl. vi, 20; *S. P. A.*, iv, pl. 47 B.

³ Ashton, pl. 1 B; Aga-Oglu, p. 85, fig. 6; Michelet, p. 104; Godard¹, pl. xxxvi, 155, and a number of unpublished specimens.

details and in stylization. They principally affect the components of the fantastic creatures. For instance, a bronze in the Institute of Arts, Detroit,¹ has a bird's head, and another in the Art Institute, Chicago,² has the feet of a horse with well-marked hooves. Everything suggests that these bronze-headed iron pins were produced in Luristān in the first quarter of the first millennium B.C., or even a little later in many workshops and local variants. The variant represented by no. 43 has certain individual features which differentiate it from other allied specimens.

K. *Armlet*

In general very few armlets from Luristān are on record. No. 44 is, therefore, a welcome contribution to our knowledge of this class of personal ornaments, the more so as it introduces us to a type hitherto unknown not only in Luristān but also in Western Asia in general.

44. L. 11.3, br. 9.2, 1.0-1.2. Dark green patina (pl. LXXIX, *b*).

This armlet is rather heavy. In view of its comparatively small dimensions it must have been intended for a girl rather than for a grown woman. It has an oval form, produced by bending a thick bronze bar; the bar is round in section. There is a fairly large space between the ends, which have been cut off bluntly and not finished off; they are of unequal thickness, and have none of the plastic decoration which usually marks the bronze bracelets (45-7). The sole ornamentation consists of engraved work upon the outer surface towards the two ends. The rest of the outer and the whole of the inner surface are undecorated. The decoration is made up of a frieze of triangles filled with lines, and followed by two broad zones set between three groups of three parallel lines each. The zones contain columns filled with herring bone; on the right-hand side only of the armlet is the space between these columns filled with a vertical zigzag line. The ornamentation therefore is very simple, and only makes use of a few elementary motives such as we have seen in other bronzes (8, 38, 41). The execution is not quite careful, particularly in comparison with the delicate engraving of some other specimens (8, 45). The object dates from the beginning of the first millennium B.C., and recalls some armlets found in Europe which are similarly ornamented at the two ends.

L. *Bracelets*

All three bracelets (45-7) are open; such are more frequent than the closed in Luristān. They are made out of a thin bar of round section, and have decorated ends. The space between the ends varies in breadth from very narrow (47) to comparatively wide (45). Some of these bracelets (46, 47) are of such small diameter that they can only have been worn by children.

45. L. 7.9, br. 6.3, th. 0.5 (pl. LXXIX, *c*).

The ends consist of rams' heads of unequal size with plastic eyes, small ears, nostrils and mouth indicated by incisions, and not very large horns bent forwards. Below the

¹ Aga-Oglu, *loc. cit.*

² Michelet, *loc. cit.*

heads, scarcely visible under the light green patina, is engraved ornament consisting of two parallel horizontal lines and a double zigzag line.

Plastic zoomorphic ends occur quite frequently in Luristān bracelets, and various animals were popular for this purpose. This is, however, the first instance of a ram's head which has come to my notice. This fact is important as the *motif* was also used in Achaemenid art, e.g. the silver bracelet in Dr. Reber's collection, Lausanne,¹ with its ends in the form of rams' heads with elongated horns (c. 500 B.C.). Allowing for the difference of material and, in connexion therewith, for the more accurate and artistic rendering of anatomical details by the Achaemenid silversmith, not to mention the lapse of time separating the two objects, there is some similarity in the treatment of the same *motif*. Bracelet 45 enables us to affirm that in this, as in so many other instances, the Achaemenid artist benefited by the legacy of Luristān.

46. L. 6.4, br. 6.1, th. 0.4. Dark green patina (pl. LXXIX, *d*).

The bar of the bracelet passes by means of two oblique wavy lines into ends in the form of the forequarters of birds with heads turned away and bills buried in their feathers. Stylization has gone very far, but the bird is probably a duck. The passage from the bar to ornithomorphic ends is carried out in this bracelet (46) exactly as was that from shaft to head in pin 35.

Several Luristān bracelets with ends of this type are known in the Louvre² and at Brussels.³

47. L. 6.3, br. 5.3, th. 0.5. Light green patina (pl. LXXIX, *e*).

Three parallel ridges separate the bar from the ends. In contrast to the plastic animal heads represented in profile (45), or the bird bodies (46), these ends have the form of rather large, flat plaques, decorated in low relief on the outer side, and quite plain on the reverse. The relief represents a conventionalized lion's head. We can easily distinguish the broad nose passing into the borders of the eyes, these being in the form of discs. On both sides of the nose a number of parallel lines vividly indicates the whiskers. Above the eyes are placed small ears.

I could cite a number of bracelets of other types, in which the same lion mask *motif* has been employed for the ends.⁴ It is more often met with in the heads of garment-pins,⁵ and only occurs sporadically in decorative bronzes.⁶ Passing over small differences in details, in all these specimens the lion mask is treated in the same manner as a relief. They form a uniform stylistic group, and probably come from one and the same workshop, which had its own established repertory of ornamental *motifs* and patterns. It is not easy to fix the period of this workshop's activity, but in view of the advanced and very individual stylization of the animal head it must probably be brought down to about 650 B.C. This would also be the date of pin 47.

¹ Pudenko, *A.f.O.*, ix (1934), p. 85, pl. iv, 1; *S.P.A.*, iv, pl. 122 c. Other specimens: Gadd, *B.M.Q.*, XI (1937), pp. 121 ff.; Luschey, *Archäologischer Anzeiger*, LIII (1938), cols. 760 ff.

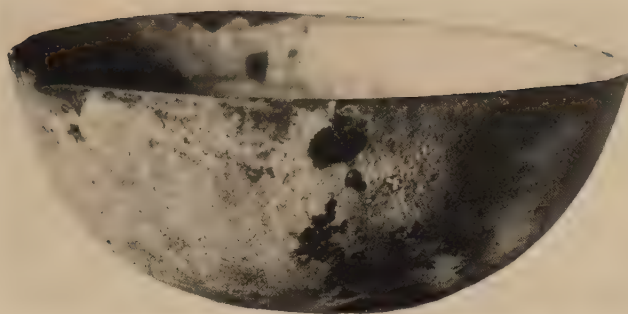
² Godard¹, pl. xxvii, 84.

³ Speleers², p. 99, fig. 23.

⁴ Godard¹, pl. xxvii, 83; *S.P.A.*, iv, 55 D, 57 D.

⁵ Moortgat², pl. vii, 21; Godard¹, pl. xxxiii, 138; Speleers², p. 117, fig. 13.

⁶ *S.P.A.*, iv, pl. 53 E.



a. Bronze no. 49



c. Bronze no. 51



b. Bronze no. 50



d. Bronze no. 52



e. Bronze no. 53

Vessels

M. Vessels

Bronze vessels make up an important part of the objects discovered in Luristan graves. Usually they are not very large, and are hammered out of relatively thin bronze plate from 0.1 to 0.2 thick. Among them are specimens with plastic decoration, for instance small bird figures on the handle;¹ others have the body embossed and engraved.² Frequently, however, the surface is plain, and the only decoration is a group of parallel stripes running round the body. Bronze table ware of this kind is to be found in Mr. Savery's collection.

48. H. 11.1, width 6.1-6.4, th. 0.1. The dark brown metal emerges in places from under the patina. At the top is a bad crack 2.0 in length (pl. LXXIX, *f*).

The lip is relatively broad, the profile of the sides is slightly concave, and the rounded bottom has, in the middle, a small protuberance in consequence of which it cannot stand upright. It must, therefore, either have been placed on a special stand, but we do not know of any objects from Luristan which could have been employed for this purpose, or have been stood upside down and only filled with liquor when it was to be used.

There is a similar goblet at Brussels,³ which, however, differs from 48 in dimensions, proportions, and profile. Another specimen in that collection⁴ has the rim of the lip slightly everted, and the passage from the body of the goblet to its bottom strongly accentuated—features not to be found in the two preceding specimens. In this vessel the larger and clearly differentiated basal protuberance acts as a foot.

Most of the Luristan vessels of this type are distinguished by a rich embossed decoration, occupying the whole of the surface. Many of them are known, for instance, at Tehrān, Berlin, and Geneva, and in several private collections.⁵ Specimens with the surface undecorated as in 48 are much rarer.

49. H. 7.6, d. 17.0, th. 0.2. Metal dark brown, almost entirely covered with patina.

This is a largish bowl with a slightly flattened bottom, enabling it to stand. In one place the rim is bent outwards into a small spout or lip (pl. LXXX, *a*).

In the Ancient East this form was very common at every period. Such bronze dishes with a lip are, however, extremely rare. The specimens at Brussels and Berlin⁶ are without lips, as is also the vessel with a dedication to Sharkalisharri,⁷ which, though found in Luristan, is of Mesopotamian manufacture (see p. 232).

50. H. 10.7, d. of the mouth 10.4, d. of the body 7.3, th. 0.2. In places the patina has a bluish tinge. Damage inconsiderable—small piece broken off the rim, a crack and a hole in the body (pl. LXXX, *b*).

The low and broad neck expands into a slightly everted rim. The body is surrounded at the top with twelve parallel engraved lines. Below these the body contracts a little

¹ *S. P. A.*, iv, pl. 61 B.

² Godard¹, pl. LXII; *S. P. A.*, iv, pls. 67 B, 68.

³ Speleers², p. 118, fig. 16, No. 0.986.

⁴ Speleers⁶, p. 43, fig. 21.

⁵ Godard¹, pl. LXIV; Moortgat², pl. VIII, 23; Contenau³, pl. II; *S. P. A.*, iv, pls. 69-72; Baumgartner, p. 58, figs. 1-2; Godard², p. 125, fig. 16.

⁶ Speleers², p. 91, fig. 35; Moortgat², pl. X, 35.

⁷ Legrain, pl. XXIII, 61; *S. P. A.*, iv, pl. 25 A.

so that its profile is slightly wavy. The passage from the body to bottom is curved, while the bottom itself is extended into a broad, slightly accentuated foot which enables the vessel to stand.

Two Luristān vessels at Brussels¹ have their bodies decorated in the same manner and at the same place, but they have only four and six lines respectively.

51. H. 8.5, d. of the lip 6.8-7.0, d. of the body 5.8, th. 0.1 (pl. LXXX, c).

The relatively low and broad neck enlarges considerably into a slightly everted rim. The passage to the body consists of two ridges, below which is a broad, inclined shoulder. The body has two parts, the upper higher than the lower, both slightly convex, and divided from one another by a constriction. The body passes abruptly into both shoulder and bottom. The bottom is extended into a broad, almost flat foot, which enables the vessel to stand.

52. H. 9.4, d. of the lip 6.1-6.4, d. of the bottom 2.4, th. 0.1. The body is damaged in two places; on one side there is a hole and opposite to it a dent (pl. LXXX, d).

The vessel has a broad opening, and not very high neck. The passage to the body consists of a broad, sloping shoulder, sharply cut off from both it and the neck. The body narrows gently into a flat bottom which, though not large, enables the vessel to stand upright.

53. H. 9.3, d. at the broadest part of the body 12.0, d. of the bottom 7.0, th. 0.2. Colour of the metal dark brown. Damaged in several places, hole and crack in body, rim torn in two places, tear at the base of the spout (pl. LXXX, e).

Opening broad, rim very slightly everted. The not very high collar passes gently into the body, which narrows towards the bottom. A slight constriction separates the body from the bottom which forms a foot.

This vessel has a handle (h. 3.4, br. 0.5, th. 0.3), the hammered out ends of which are attached to it by two rivets, one on the rim and the other on the broadest part of the body.

On the opposite side a piece of the collar has been cut out and turned downwards; to it has been riveted by three rivets a long spout open above: l. 6.8, h. 1.4, br. 1.5.

A similar ornamented vessel is in the collection of Mr. T. L. Jacks,² and a second one with a handle, but without spout, at Stockholm.³ The latter vessel shows more marked differentiation of the collar, and much higher foot. The long spout, open above, appears frequently in Luristān bronze vessels, which may be quite different in form from 53, for instance, specimens at Brussels,⁴ and many others.⁵

All these specimens (48-53) belong to the class of small bronze vessels which are particularly abundant and well represented in the museums of Berlin and Brussels and some private collections.⁶ The variety of forms is striking, and each specimen has some individual characteristics to distinguish it from its kindred. We have found this while

¹ Speleers², p. 91, fig. 42; Speleers², p. 118, fig. 16, No. 0.904.

² *S. P. A.*, iv, pl. 62 E.

⁴ Speleers², p. 118, fig. 17.

⁶ Moortgat², pls. VIII-IX; Speleers², pp. 118-19, figs. 16-19; Speleers², pp. 90-4, figs. 35-47; Speleers⁶, p. 43, figs. 20-1; *S. P. A.*, i, p. 273, fig. 65.

³ Arne¹, p. 282, fig. 19.

⁵ *S. P. A.*, iv, pls. 62-4.

describing our nos. 48, 49, 53. For the other specimens (50-2) no analogies exist among the published material. As regards both forms, technique of execution and ornamentation vessels 48-53 supplement our knowledge of this hitherto little studied group of Luristān bronzes.

In comparison with the large number of bronze vessels the pottery of Luristān is less abundantly represented in our museums. I do not believe that this can be explained by the vandalism of the native diggers who destroy clay pots while preserving the more precious metal objects. The real cause of this phenomenon seems rather to lie in the fact that the mainly nomad or half-settled population of Luristān frequently changing their place of abode, preferred, as their wealth increased, to acquire light and durable metal articles, which were in consequence in great demand among them. The form and dimensions of vessels were practically the same in both clay and metal, as can be seen by comparing the bronze specimens from Luristān with pottery, not only from there but also from other parts of Western Īrān. It is clear that in this case the forms of the bronze vessels were borrowed from the ceramic repertory and not vice versa.

Nos. 48-53 are similarly connected with the pottery of Western Īranian sites by close typological affinities, though in view of the difference of material complete identity of forms between the clay vessels and their metal imitations is not to be expected. Thus, to goblet 48 correspond in form and proportions vessels from Tepe Ghiyan¹ on a short foot, which in it has been reduced to a small protuberance on the bottom. Similarly, vessels 50 and 51 have their counterparts in pottery. It is enough to cite a pot from Kamterlān II² with a broad lip, everted rim, and strongly marked passage from upper part to body—all characteristics of no. 50. With their everted rims, form and proportions of neck and sloping shoulders some pots from Tepe Ghiyan³ may be regarded as the prototypes of no. 51. These pots have bodies with curved lines, since rounded forms predominate in clay, whereas the use of metal plate gives rise rather to sharp lines and angular forms, as we see in vessels 50 and 51. The parallel engraved (50) or embossed (51) lines correspond in their decorative function to the painted bands on clay pots in the same place. On the other hand, the greater (51) or lesser (50) constriction of the body, which is only possible in metal objects, serves to enrich and individualize their shapes. No. 52 is no less clearly allied to ceramic forms, as can be seen by comparing it with a pot from Luristān at Geneva,⁴ and with another from Harsin in the Museum at Malmö,⁵ which has a low neck and a widened lip. Finally, in no. 53 we find one of the classic features of Īranian pottery—the open spout, which persists in many variants and in clay pots of sundry types from the third millennium B.C., and was also applied in metal vessels.

The Luristān vessels (48-53) show how strongly specialized were the forms of these objects. This was certainly connected with their practical use, which, however, in the lack of suitable data cannot in most cases be determined. In any case, in contrast to the more richly decorated cult vessels, specimens 48-53 were all for everyday use.

¹ Herzfeld, 'Niphauanda,' *Iranische Denkmäler*, i, B, 3-4, 1933, pl. xvi, 5-6; xx, 4, 6; Speleers⁶, p. 43, fig. 24.

² Pope⁷, p. 123, fig. 5.

³ Contenau and Ghirshman, *Syria* xiv (1933), pl. III, 1; Herzfeld, *op. cit.*, pl. x, 15.

⁴ Contenau⁸, pl. 1, 9.

⁵ Przeworski, *E. S. A.*, x (1936), p. 113, fig. 30.

IV.--*The Roof Bosses in the Cathedral and in the Church of St. John the Baptist at Peterborough, and in the Cathedral at Ripon*

By C. J. P. CAVE, Esq., M.A., F.S.A.

[Read 27th October 1938]

THE ROOF BOSSES OF PETERBOROUGH CATHEDRAL

THE majority of the roof bosses in Peterborough Cathedral are on the wooden roof of the quire, but there are a few others which have points of considerable interest.

The first in point of date is in the eastern bay of the north aisle of the nave, where a beast's head (pl. LXXXI, *a*) is carved on the intersection of the vaulting ribs. Norman bosses are uncommon, but there are several like this one, where the mouldings of the vaulting ribs are carried across the keystone and a small figure of some sort is carved where they intersect. What this beast may be is not at all clear. It has short horns springing from the usual place, and apparently two slender ones between. This is the only boss of Norman date in the cathedral.

The second boss (pl. LXXXI, *b*), if it can be so called, is in the western bay of the nave on the high vault. The vaulting ribs are carried right across the keystone, with a small hole in the centre, but the angles between the ribs are ornamented with very simple trefoil foliage. This method of ornamenting the keystone is unique as far as I know. It looks like a tentative scheme which was not followed up, for the next roof bosses in date, those in the great west porch, are the normal foliage bosses of the early thirteenth century, but the detail of the foliage is difficult to make out as they are badly weathered. There are two more thirteenth-century bosses in the cathedral at the east end of each of the quire aisles next to the New Building: they are ordinary foliage bosses of the period.

The greatest number of bosses, as has been said, is in the quire, and belongs to the latter part of the fifteenth century; they are mostly small wooden more or less rectangular pieces, which are presumably pinned on to the roof. In this respect they are like the bosses in the nave of Selby Abbey which were fixed with wooden pins; at the time of the fire at Selby the pins were burnt through and the bosses fell to the floor, and the greater number was saved. There is also something in the Peterborough quire bosses slightly reminiscent

of the late fifteenth-century bosses which are found in such profusion in wagon roofs in Devon and Cornwall. The subjects depicted are foliage, coats of arms, passion emblems, heads, and various figures. These bosses are distributed over the roof in no apparent order. Wooden bosses which are merely bolted on to a roof were probably carved in the workshop, and it looks as though in this case they were handed out to the workmen and put up in a more or less haphazard manner.¹

The foliage and floral bosses are mostly rather crude and not of any great interest. There is, however, one of a vine (pl. LXXXI, *c*) with leaves and fruit (xi. 7) that is in the slightly naturalistic style that survived, as far as the vine was concerned, right to the end of the Gothic period.

There are nine bosses with passion emblems, and here again one is reminded somewhat of the passion emblems found in the wagon roofs of the West Country:

1. The cross, shown as a tau cross with the Crown of Thorns looped over the top of it (iii. 4). The cross with the Crown of Thorns looped over it is found in various places; for instance, in the north transept at Bristol, in the chapter house at Elgin, and in the cloisters at Wells, but in all these cases the cross is not the tau cross.

2. Three tau crosses (xiv. 7); three crosses occur occasionally, and in the porch of the church at Advent in Cornwall there are three tau crosses.

3. The pillar of the flagellation (iii. 8); this looks rather like a candlestick, but from its likeness to other undoubted examples of the pillar I think my attribution must be the right one.

4. Three scourges (i. 4); this is one of the most common of the Passion emblems.

5. Two rods in saltire (xii. 6); they look like two palm branches but I feel little doubt that they are meant for rods.

6. The five wounds (xvi. 8); this is of course a very common representation and calls for no comment.

¹ For purposes of reference the bosses in the quire have been numbered on the following plan. The bosses are in rows of five and four alternately, the rows running from north to south. Each group of nine bosses is numbered in Roman figures, i, ii, etc., from west to east. The individual bosses in each group are numbered in Arabic figures from 1 to 9, in such a manner that the odd numbers belong to the bosses in the row of five, the even numbers to the bosses in the row of four, and the numbers run from north to south.

The following will make the system of numeration clear:

West

	9	7	5	3	I	i	
		8	6	4	2		
South	9	7	5	3	I		North
		8	6	4	2	ii	

The number of each boss described is given in the text, and any individual boss can easily be picked out on the roof by the help of these numbers.

7. The three nails (i. 8); this again calls for no comment.

8. The spear and the sponge on a reed (xiv. 4); this is an unusual representation of quite a common subject; the spear and reed are usually crossed in saltire, and in no other example that I know is the reed cleft at the top to hold the sponge.

9. An object that might be meant for the chalice of the Agony in the Garden (iii. 2), though it is not very like a chalice (pl. LXXXI, *d*). It has been suggested that it might be meant for the dice box with which the soldiers cast lots for our Lord's coat.

Of heads there are a considerable number; most of them call for little comment, but there are a few that are unusual. One with very long ears (xiv. 1), perhaps those of an ass, wears a fool's cap. Another has hair which seems to be standing on end, and the face has a look of horror (vi. 9). There is also a head with long hair and a beard which is in a medallion (vii. 9); this is very likely meant for the head of St. John the Baptist on a charger (pl. LXXXI, *e*). Another head is shown with closed eyes and hollows in the cheeks (viii. 1), it may be meant for the face of a corpse. The last head (vi. 1) is the most curious of all (pl. LXXXI, *f*). The eyes are open, each cheek has several hollows on it, and the whole face is pitted with small holes. Evidently the head is meant to represent something evil.

There are a number of heraldic bosses, and in the first five to be mentioned the shield is carried by an angel:

1. A plain shield on which no charges are now visible (xii. 5).

2. Gules a cross gold (i. 9); whether the dark edging to the cross is part of the heraldry or whether it is merely the artist's way of finishing it off I do not know.

3. Gules two keys in saltire between four crosses gold (xiii. 5); the crosses are probably meant to be fitchy; the crosses should also probably be crosses crosslet, as they are in a boss in the New Building. These arms are now the arms of the see of Peterborough, but the boss in the quire and the one in the New Building both date from before the creation of the see. I suspect that the abbey, whose arms were gules two keys in saltire gold, must have added the crosses crosslet to their arms, perhaps late in the fifteenth century, and that at the Reformation it was these arms that were adopted by the newly founded see. But this is only a surmise.

4. Gules a cross flory gold (xii. 1).

5. Gules two swords in saltire silver points in base (v. 3).

The rest of the arms are on shields that are not carried by angels:

6. Gules two keys in saltire gold (i. 5). This boss is at the west end of the roof in the centre. The arms are the original arms of the abbey.

7. Gules two swords in saltire silver-hilted gold, between four crosslets fitchy gold (ix. 1). These arms also occur in the New Building where the crosslets are shown definitely as cross crosslets, and similar arms but with the crosses paty and silver are given by Woodward as the arms of the deanery.¹ But as in the case of the arms of the see

¹ *Ecclesiastical Heraldry*, p. 198.

these arms must have been in use before the creation of the deanery. Our Fellow Mr. Philip Kerr, Rouge Croix pursuivant, informs me that there is no record of such arms in the College of Arms, and there is no authority for their use by the deanery. The *Victoria County History* is probably right where it says of both sets of arms that they 'refer to the abbey, but their precise attribution is unknown'.¹

8. Gules two swords in saltire silver hilted gold (x. 9); there are no crosses on this shield.

9. Azure three crowns, one and two, each transfixes by an arrow gold (vii. 1). These are possibly the arms of St. Edmund, though usually the crowns are transfixes by two arrows.

10. Azure three crescents silver (x. 8).

11. Azure a fleur-de-lis gold (i. 7).

12. Azure three fish fretted gold (v. 1; pl. LXXXI, g). This, though on a shield, may perhaps not be meant for a coat of arms; the three fish thus shown appear in other places not on a shield.

13. Gules a pair of compasses and a set square gold (xiv. 9).

14. Gules three croziers gold (xi. 3; pl. LXXXI, h).

The following are heraldic though not coats of arms:

15. A gold crown on a red background (vi. 5).

16. A helmet (xiii. 1).

17. An extremely good armorial achievement; a tilting helm with wreath mantling and crest (xiii. 4); the crest is not easy to assign to any particular beast, but it may be a lion couchant (pl. LXXXI, i).

With regard to all these arms it must be borne in mind that the ceiling was repainted in the nineteenth century and it is possible that some of the tinctures may not be correct.

There are several figures of birds. Two of them (ix. 3 and xi. 4) hold scrolls in their beaks and claws, and are extremely like the evangelistic symbol of St. John of this date, but the other symbols do not appear. One bird (xii. 7) is an extremely poor piece of carving; it looks as though some beginner was allowed to try his hand. There is also a pelican (xv. 9; pl. LXXXII, a) standing on its nest and feeding its young. Of beasts, the only real one is the lion (xiii. 9; pl. LXXXII, b) which appears to be wiping out its footsteps with its tail in the manner described in the bestiaries.

There are four fabulous creatures. There is a kind of centaur which appears to be a man in front with the hinder part of a lion (iii. 1; pl. LXXXII, c). He holds a scimitar in his right hand and a heater-shaped shield in the left. A scaly beast with bat-like wings (iii. 3; pl. LXXXII, d) might be classed as a dragon. Two dragons with their necks intertwined occur here (ix. 9; pl. LXXXII, e); there are quite a number of such dragons with intertwined necks in wooden bosses in

¹ *V. C. H. Northamptonshire*, ii, 437, footnote.



a



b



c



d



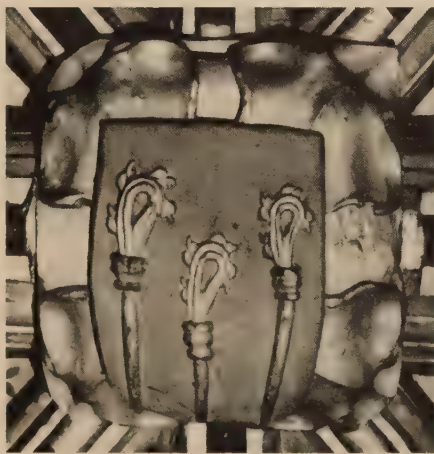
e



f



g



h

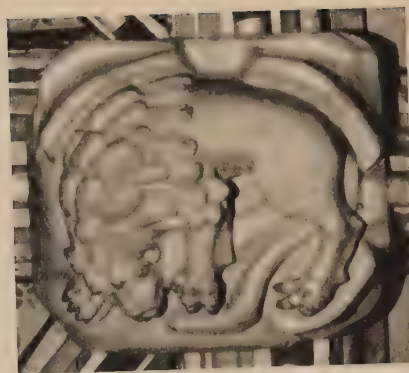


i

Bosses in Peterborough Cathedral



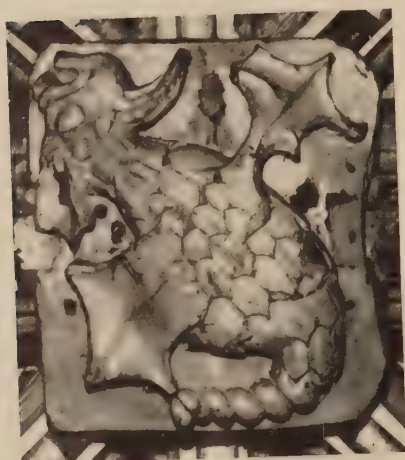
a



b



c



d



e



f



g



h



i

Bosses in Peterborough Cathedral

Devon and Cornwall. The last of the beasts is the seven-headed beast of the Apocalypse (xi. 1; pl. LXXXII, *f*). Only five heads are actually visible but there can be no doubt what this beast is when one compares it with the seven-headed beast as portrayed in the cloisters at Norwich.

There are ten bosses with figures carved on them:

1. An angel issuing from conventional clouds, with hands together in prayer (xvi. 4).
2. Four demi-figures of angels with their hands together in prayer (iii. 9).
3. Three-quarter figures of two women with long hair (viii. 9; pl. LXXXII, *g*); one has her hands together in prayer, the other holds a fold of her dress in one hand; the other hand may be holding a staff. The figures are crudely carved.
4. The Annunciation (xv. 5; pl. LXXXII, *h*). Our Lady stands on the left and Gabriel kneels on the right, supporting a label with one hand; no trace of writing appears on it. Between the figures is a very large lily in its pot.
5. The Assumption (v. 5; pl. LXXXII, *i*). I take this to be the subject; the representation is of a demi-figure, crowned, with long hair, hands raised in adoration, and surrounded by rays of light. Our Lady should not be crowned in representations of the Assumption, but there are plenty of examples where she is, in the Lady Chapel at Winchester for example.
6. The Temptation (xv. 1; pl. LXXXIII, *a*). Christ is shown in a long robe with beard and long hair, and holding a book; He looks towards the Devil on the left. The latter is a very grotesque figure with a distorted face and another face on his stomach; coming out of his head-gear is the head of a serpent; his left leg has a cloven hoof, but his right leg is bent up at the knee and he has a wooden leg which is strapped to the thigh. In one hand he carries some stones.
7. The Crucifixion (iii. 5; pl. LXXXIII, *b*). Our Lady and St. John stand on each side of the cross.
8. The Resurrection (xi. 5; pl. LXXXIII, *c*). Christ surrounded by rays of light steps out of the tomb. He wears a loin cloth and a cloak-like garment which falls over the shoulders but leaves the upper part of the body bare; it may be meant for the shroud. One hand is raised in blessing and the other looks as though it were holding the cross of the Resurrection, but if this ever existed there is no trace of it now. The carving is very crude.
9. The Trinity represented as three men (ix. 5; pl. LXXXIII, *d*). In the centre is God the Father, wearing a crown and holding the orb in the left hand, while the right hand is raised in blessing; the Son is on the left, a similar figure to the Father but He is not crowned and both hands are held up palms outward. The Holy Spirit is represented as a young man with long hair but no beard; the hands are held up as are those of the Son.
10. God the Father (vii. 5; pl. LXXXIII, *e*). A demi-figure just like that of the Father in the previous boss but surrounded by conventional clouds.

On the vaulting under the tower there is a number of bosses with rather a modern appearance, but I think some of them are old bosses which came from the fourteenth-century lantern and were replaced when the present tower was rebuilt in 1884 to 1886. Many of the heads and the symbols of the evangelists have the appearance of fourteenth-century bosses; on the other hand,

some of the bosses have a very modern appearance, and the central boss of Christ in Majesty does not quite correspond with the drawing given of the original boss in the volume on Peterborough in Bell's Cathedral Series; it is most likely a copy of the fourteenth-century boss.

In the porch inserted under the central arch of the west front in the latter part of the fourteenth century are several very remarkable bosses. The porch is divided into two bays. On the central boss of the western bay is a sculpture of the Assumption (pl. LXXXIII, *f*). Our Lady is supported by four angels wearing crowns. She herself is not crowned. She carries in her hand a belt with a buckle; this is in allusion to the story in the Golden Legend that St. Thomas was not present with the other apostles and disbelieved in their account of the Assumption 'and anon the girdle with which her body was girt came to him from the air, which he received and thereby he understood that she was assumpt into heaven'.¹

The central boss in the eastern bay of the porch is an extremely curious representation of the Trinity (pl. LXXXIII, *g*). We find many examples of the Trinity in which the Father is holding the Crucifix in front of him; sometimes in these examples we find the Holy Spirit represented in the form of a Dove, but sometimes this is omitted. Emile Mâle considers that this representation was intended to symbolize the Father's participation in the sufferings of the Son. The representation at Peterborough is, however, unique as far as I know. Here the crucifix is replaced by the Image of Pity, the risen Christ exhibiting the signs of His Passion. But still more curious is the figure of the Father whose face has become what I have called a sun face; such faces are found fairly frequently in roof bosses. It would be interesting to know why the ordinary representation was not adhered to, and how the face of the Father had been thus transformed, and why the Image of Pity had replaced the crucifix.

There are other bosses in the west porch; round the Assumption are figures of angels, and round the Trinity are the symbols of the evangelists. On other ribs are bosses with the pelican on its nest, and an angel playing a pipe. There is also a head showing foliage growing from the mouth, the only such head in the cathedral.

The New Building which was built in the early years of the sixteenth century has fan tracery vaulting with nine bosses of shields. In order from the south aisle round the east end to the north aisle they are as follows:

1. A saltire; this has much foliage ornamentation on both the field and the charge.
2. Two swords in saltire between four crosses crosslet fitchy; the lower cross is no doubt meant for a cross crosslet though it is shown as a cross fitchy, doubtless because there is not space to show it as a cross crosslet.

¹ *Golden Legend* (Temple Classics), iv, 241.

THE ROOF BOSSES OF PETERBOROUGH CATHEDRAL 277

3. Two keys in saltire between four crosses fitchy; the upper one is a cross crosslet, the three lower ones are plain crosses fitchy, doubtless for the reason given above.
4. A cross flory between four lions rampant.
5. Passion emblems; a cross with the Crown of Thorns looped over the top, the spear and the reed with the sponge in saltire over the cross, and in the quarters other emblems, the pillar of the flagellation, with ropes and scourges, represented twice over, and the nails.
6. Three crowns, two and one, each transfixd by an arrow.
7. A cross flory between five martlets, the arms of St. Edward the Confessor.
8. Two lions passant gardant.
9. A cross and in the first quarter a spear, or perhaps a spear on a bend, in the second the gateway of a castle, in the third a lamb with a rope round its neck, in the fourth a beast, probably a dragon.

The *Victoria County History* gives for 1, St. Andrew; 4, St. Oswald; 6, St. Edmund; 7, Edward the Confessor; and 8, the leopards of England.¹

THE ROOF BOSSES IN THE CHURCH OF ST. JOHN THE BAPTIST, PETERBOROUGH

There are two roof bosses in the south porch which may be put on record here. They are fifteenth-century bosses and are well carved, but they are somewhat weathered. One represents God the Father holding the Crucifix (pl. LXXXIII, *h*). The Father is shown as an old man with long hair and a beard; there is no nimbus. There is an object on the top of the cross which may have been meant for the Dove, but the weathering of the sculpture makes this uncertain. There are four angels, two on each side. The two upper angels are swinging censers, the two lower ones are holding chalices with which to catch the blood that drops from our Lord's hands.

The second boss is of the Annunciation (pl. LXXXIII, *i*). Our Lady stands on the right with her hands raised; she is habited in a tightly laced dress with an outer cloak fastened by a brooch below the neck. Beside her is a book-rest with an open book on it. The angel is on the left and between the two figures is the lily pot. There has been something on the upper left-hand side of the boss which may have been a small figure of God the Father, but it is much weathered and its meaning is not clear.

THE ROOF BOSSES IN RIPON CATHEDRAL

All the bosses of any importance in Ripon Cathedral are to be found on the groined wooden roof of the quire. This roof was put up during Gilbert Scott's restoration of the Cathedral in 1862-70. The bosses, however, are

¹ *V. C. H. Northamptonshire*, ii, 437.

ancient, with one exception. They have been said to come from the nave, but Mr. Wells, the present (1937) sexton, says that Mr. Winsor, who was verger for fifty-two years and who died in 1936, always maintained that the quire bosses were taken down from the original quire roof, were regilded and put up again, and that they did not come from the nave. The bosses are now highly gilt and this makes their photography a matter of some difficulty.

They appear to be fourteenth-century carvings. There are twelve of them, and there is a thirteenth which is modern, the Crucifixion. It is not possible to say whether they are in their original order, and in describing them I shall not take them in their present order.

At each end of the quire is a head; these are surrounded by rays which may be meant for rays of light, which would put these heads into the category of what I have termed sun faces, but they are rather earlier than the majority of such faces; one possibly and one certainly have the tongue out, and one has foliage which seems to be growing out of the ears.

There is a third head which is almost certainly meant to be the head of Christ (pl. LXXXIV, *a*).

A figure (pl. LXXXIV, *b*) is represented as sitting on a bench, with one hand raised and the other holding something which may be a book against his body; he has been given what are probably nineteenth-century wings, but I rather doubt whether he is meant for an angel, for one foot is shown under his robe and this foot is not bare as it should be if the figure were an angel. Below the figure is a foliage boss.

There are two figures of bishops or abbots; one is standing and is holding a crozier in his left hand and blessing with his right. He is surrounded by foliage which is intended for oak since acorns are shown, but the foliage itself is conventional and not naturalistic in any way. The second bishop or abbot (pl. LXXXIV, *c*) is seated and has one hand raised as though in blessing, but he has all the fingers extended.

A third bishop is shown seated beside a king (pl. LXXXIV, *d*). The king may possibly be meant for Athelstone, who was looked on in later ages as having granted to the church some of its greatest privileges. At Beverley, St. Mary, Athelstone is commemorated on a boss side by side with St. John of Beverley.

A boss of the Annunciation (pl. LXXXIV, *e*) has our Lady standing on the right, Gabriel on the left, with a large pot with a lily in the centre. Gabriel's wings may be modern.

On the boss of Christ in Majesty (pl. LXXXIV, *f*) our Lord is seated on a bench; His right hand is raised and He holds the orb in the left.

The three remaining bosses are, I think, all taken from the story of the Creation and the Fall. One has been described as the Good Samaritan, but



a



b



c



d



e



f



g

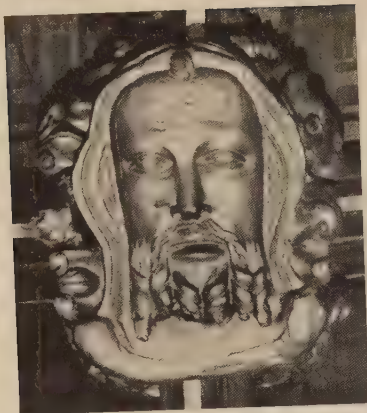


h

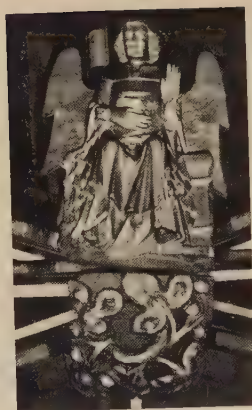


i

Bosses in Peterborough Cathedral (*a-g*), St. John's Church (*h, i*)



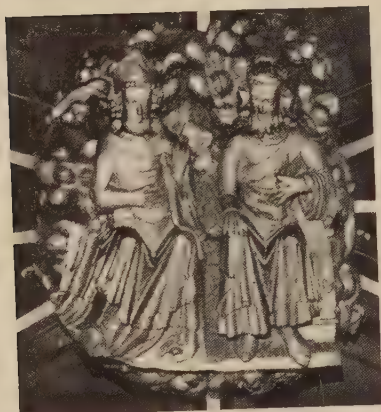
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b



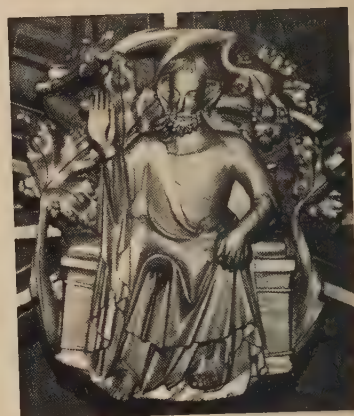
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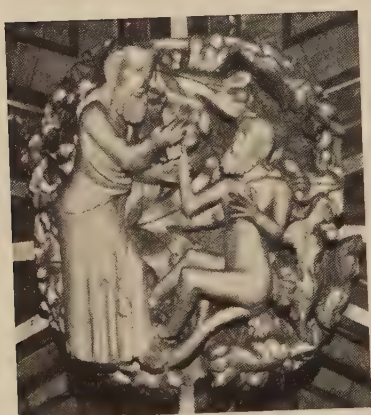
d



e



f



g



h



i

Bosses in Ripon Cathedral

I feel sure that it is really meant for the creation of Adam (pl. LXXXIV, *g*); the attitude of the figures is very much the same as in the undoubted creation of Adam in the later boss in the nave of Norwich.

The next boss has been described in print as a man conducting a woman to a church door. I think that this can hardly be the explanation, and that the real attribution must be God speaking to Eve after the Fall and before the Expulsion (Genesis, ch. 3, v. 16; pl. LXXXIV, *h*). The building on the right would, on this view, be the gate of Paradise through which Adam and Eve are about to be expelled.

Finally, we have the boss of the Expulsion (pl. LXXXIV, *i*), and it is from their association with this boss that I feel pretty sure of the attribution of the other two. There are plenty of bosses representing Adam and Eve, and several representing the Fall, but this is the only one that I know where the subject is the Expulsion.

In the transept there are two later bosses. One is a face about which there is not much to say. The other is the *Agnus Dei* with the Lamb in the stereotyped attitude which is found from the eleventh to the sixteenth century. The *Agnus Dei* is a very common subject across the channel; it is rare, however, in the south of England, but becomes commoner as one goes north.

V.—*Wall-paintings recently discovered in Worcestershire*

By MISS ELSIE MATLEY MOORE

[Read 5th May 1938]

UNTIL fairly recently Worcestershire has yielded very scant evidence of wall-paintings, either ecclesiastical or domestic, though we know from other evidence that this was not because the county was originally deficient in a sense of decoration. The more likely reason is that no one in Worcestershire has shown much interest in wall-paintings, and when discoveries have been made during building alterations or demolition they have been destroyed without even photographs being taken.

The paintings to be described cover very different periods of decoration. Those at the Commandery, Worcester, are pre-Reformation; at Harvington Hall, Elizabethan; and at Yew Tree House, Ombersley, late seventeenth century, showing that throughout this long period wall-paintings were produced in this county, and at Harvington Hall and Yew Tree of considerable merit. The paintings at the Commandery are not of the same high artistic standard, but they were produced in a decadent period; still a room containing nine pictures and a painted ceiling of the late fifteenth century must, I think, be unique.

The Commandery, Worcester

The Commandery, or to give it its real name the Hospital of St. Wulstan, is a pre-Reformation house standing just outside the former Sidbury Gate of Worcester. It is a house of great interest apart from the room which I am going to describe. Unfortunately, the records were destroyed and there is comparatively little early history attached to it.

Since the surrender of the house, at the Dissolution, by Richard Morison, 20 May 1541, it has been used for many purposes, amongst others a clothier's shop and a tannery, and part is now a printing works. The painted room is upstairs. It has two exterior walls and two interior; the exterior walls have been replaced so that there are only paintings on two sides of the room. The room is used by the office staff of Mr. Littlebury's printing works and the original discovery of the paintings was made by a whitewasher. Mr. Littlebury kindly gave me every facility to work on the paintings, to take off the white-wash and make reproductions which are now in the Victoria and Albert

Museum. There were seven coats of different coloured washes over the paintings.

On the ceiling is a representation of the Trinity (pl. LXXXV, *d*). God the Father is seen displaying God the Son, but unfortunately the ceiling is mended by patches of plaster, which it is not advisable to remove, so it is impossible to see if, as I expect, God the Holy Ghost is shown, as a Dove. At each end of the ceiling are two circles of twisted rope or stems with leaves branching from three places, inscribed at the one end of the room 'Jesu merci' and at the other 'Lady Helpe'. Between the circles and the golden (yellow ochre) crown of God the Father is a shield bearing the sacred wounds, and beneath the feet of God the Father and between the other two circles is a heater-shaped shield bearing argent ten torteaux, the arms of the See of Worcester. The whole of the background is white, stencilled with two patterns, one in deep maroon red, the other a small cinquefoil in black. All the pictures have the same stencilled background, and the colours of all are this same deep red, yellow ochre, a blue-grey, flesh-pink, black, and touches of vermillion for cheeks.

There is a beam 40 in. from the ceiling in both of the interior walls of the room, and between this and the ceiling are three paintings, the middle picture in each case being 40 in. by 80 in. The illustration of St. Erasmus will show the position (pl. LXXXVI, *b*). This is an interesting picture to compare with the alabaster panel of St. Erasmus that is at the Society of Antiquaries. In the one at the Commandery there are four onlookers—the Emperor Diocletian, two sword-bearers, and a man dressed in white, whom so far no one has been able to recognize. There is an extraordinary similarity between this drawing and a wall-painting that was once at Ampney Crucis. This no longer exists, but a copy is in the church, made by a late Rector (pl. LXXXVI, *c*).

Beneath the St. Erasmus at the Commandery is a quantity of lettering, but unfortunately apart from the words 'and sent Erasmus' so much of the inscription is missing that it seems impossible to read the rest. This is the only picture that has any lettering at the bottom. On the left hand of the picture of St. Erasmus is one of St. Roch (pl. LXXXVII, *b*). The damage to the wall that has spoilt the lettering on the other picture has spread to this side of the beam. St. Roch is seen standing whilst an angel presents him with a scroll. On the right hand of the picture of St. Erasmus is St. Peter bearing in his right hand an Archbishop's staff and in his left two colossal golden keys which he supports on his shoulder (pl. LXXXV, *b*).

Above the beam on the opposite wall is a picture (40 in. by 80 in.) of St. Michael weighing souls (pl. LXXXVII, *d*). St. Michael wears the correct garb of an archangel and carries a pair of scales. At his left hand stands the Blessed Virgin Mary who is assisting with her rosary to balance the

scale in the soul's favour. On the other side the devil is trying to claim his own.

Opposite to St. Peter, and on the left-hand side of St. Michael, is a picture of St. Godwall (pl. LXXXV, *c*). St. Godwall is a local saint; he was a hermit who lived at Finstall, near Bromsgrove, Worcestershire. The church at Finstall is dedicated to him and it seems that the only other church dedicated to him was that of the Commandery, of which there are now only the bases of two pillars remaining. In this painting he is given, apparently quite incorrectly, the dignity of an archbishop. The drawing of this face has been better class work than most in this room.

On the other side of St. Michael and opposite to St. Roch is St. Etheldreda. She wears a crown and carries in her left hand a crozier turned outwards. In her right hand she has a book (pl. LXXXV, *a*).

That accounts for all six paintings above the beam.

Below the beam under the picture of St. Etheldreda, that is, in the corner, and not as one would expect in the centre of the wall, is a painting of the Crucifixion (pl. LXXXVI, *a*). Unfortunately, there is very little left, but what there is is almost unique, for it shows the cross with the label, Christ's head, part of a scourge, the head of a spear, two nails, and a large black cock. This is the only picture left on the lower part of that wall. In the centre of the middle panel of the same wall was a trace of a painting—a piece of plain deep red about 4 in. by 5 in., but nothing more.

The opposite wall has two paintings. One (over a doorway), a small picture of St. Anne teaching the Virgin (pl. LXXXVII, *a*). This is not in very good condition, but suggests that it was by a better artist than the majority, probably by the painter of St. Godwall's face.

Below the one part of St. Erasmus is a picture of St. Thomas à Becket (pl. LXXXVII, *c*). St. Thomas is shown kneeling at an altar, the south end of which is to the front of the picture. On the altar is a large gold chalice and behind, bearing the Archbishop's staff, is Edward Grimm. The four knights, Reginald Fitzurse, Hugh de Moreville, William de Tracey, and Richard le Bret are behind St. Thomas and two of them smite him with their swords. On a scroll falling down on the right hand of the picture is 'Thoma Thoma . . . mea . . . in sanguine tuo'.

Before these pictures were found there was some doubt about the pre-Reformation use of this wing of the house. It was considered that it was probably the infirmary, and these paintings point to this conclusion. The picture of the Trinity, the Crucifixion, and the weighing of souls all suggest preparation for death. St. Erasmus is one to whom to pray during afflictions of the stomach, St. Roch is the patron saint of those suffering from plague, and

St. Thomas of Canterbury of those who suffer from afflictions of the head. Of the others, St. Peter and St. Anne with the Virgin are appropriate for any religious house whilst St. Godwall, as I have shown, was the patron saint of the Commandery Chapel. This leaves only St. Etheldreda to be accounted for. St. Etheldreda has no connexion with any of the others, but we must remember that we have only half a roomful of paintings, and the explanation probably lies in the lost half. That it has been possible to preserve nine pictures and a ceiling is extremely fortunate. I have treated the paintings under Dr. Tristram's supervision and with Mrs. Edward Corbett's help, and for fear of fire or any unforeseen calamity I have made reproductions.

Harvington Hall

This is one of the most fascinating houses in Worcestershire. It is famous for its hiding holes and for the part it played during the Recusancy laws, but I think it is likely to become equally famous for its wall-paintings. It contains more and better quality work than I have seen in one house.

The manor of Chaddesley Corbett was acquired by Sir John Pakington, *temp.* Henry VIII. On his death in 1551, without male issue, it appears to have passed to his brother Humphrey, the founder of the Harvington branch of the family. Humphrey died in 1556 and the manor descended to his son John, who died at Chaddesley Corbett in 1578.

The residence of the Corbetts and other earlier owners of the manor occupied a site near the parish church of Chaddesley, but it is probable that by the time that Humphrey Pakington inherited the property Harvington Hall had become the principal house on the estate. It was at that time a timber-framed building of which portions only remain, incorporated in the present house. There is evidence that John Pakington was in residence at Harvington in 1570, and there can be little doubt that he embarked on an extensive scheme of rebuilding about that time. The whole of the main or south block, with the exception of the attic story, and the north wing or tower, with the exception of the roof, appear to be his work. The low connecting portion, subsequently cased in brick, is part of the earlier timber-framed house.

It is only comparatively recently, after being disgracefully treated for years until it was considered to be beyond repair, that the restoration of Harvington Hall was begun. The ivy had wrought such havoc that very extensive repairs were necessary. I think every one must agree that they have been carried out with great thought and appreciation of the building.

Apart from some grisaille on the staircase, about which I will speak later, some of the earliest traces of colour are in the room immediately above the gateway, and one piece of this, owing to its position in a corner of the room



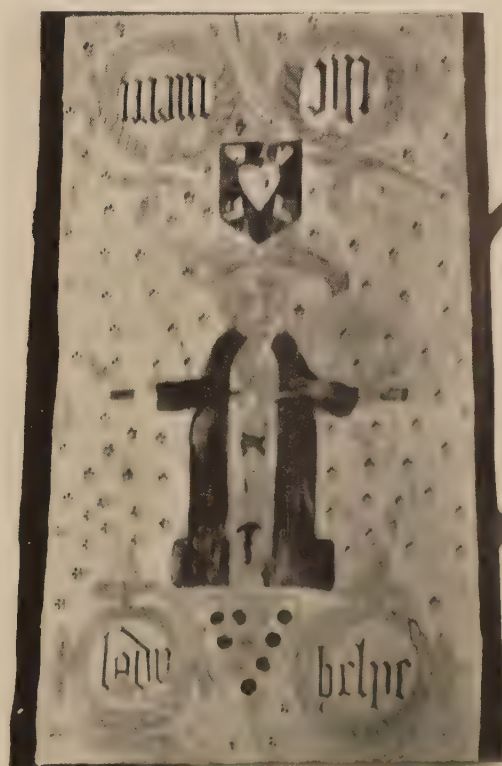
a. St. Etheldreda



b. St. Peter



c. St. Godwall



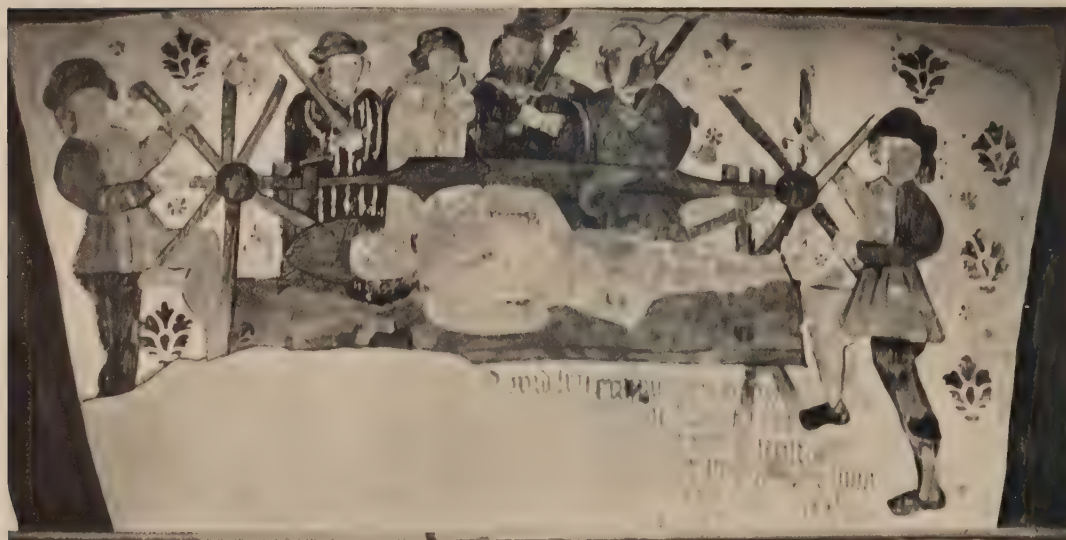
d. The Holy Trinity

The Commandery, Worcester

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a. The Crucifixion: The Commandery, Worcester



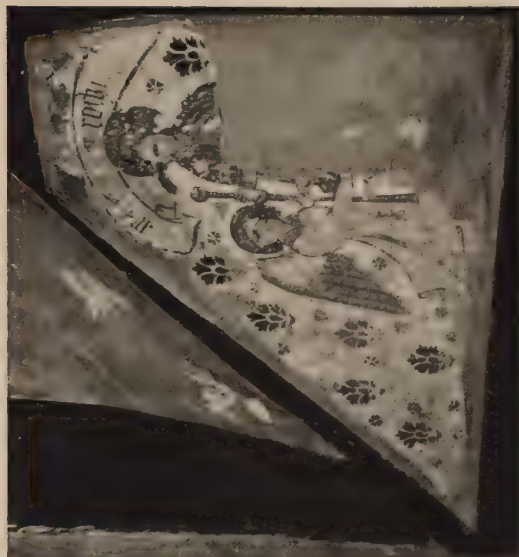
b. Martyrdom of St. Erasmus: The Commandery, Worcester



c. Martyrdom of St. Erasmus: Ampney Crucis Church, Gloucestershire



a. St. Anne teaching the Virgin



b. St. Roche



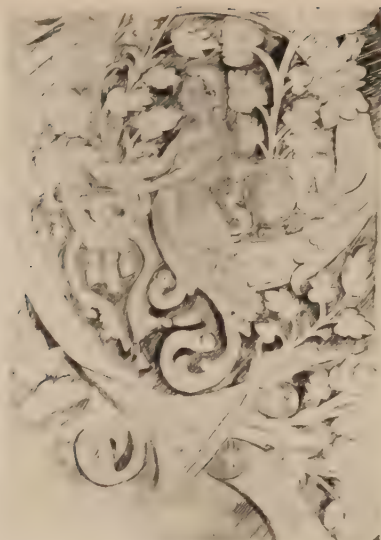
c. The Martyrdom of St. Thomas of Canterbury



d. St. Michael weighing souls

The Commandery, Worcester

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a. Newel stair



b. Museum door



c. Newel stair



d. Corner under tie-beam



e. Samson: detail



f. Joshua or Judas Maccabaeus



g. David: detail

Harvington Hall

behind a tie-beam, has never been covered with whitewash. It is of early sixteenth-century design and more heavily coloured than any of the later work in the house. The colours are deep red, green, and grey-blue. There is only a small piece showing, but eventually we may be able to uncover more.

But the three main schemes of decoration are on the grand staircase, on the newel stair and adjoining passages, and on the top corridor. Besides this there is later decoration (seventeenth century) in the chapel, painted directly on to the unplastered brick with only a coat of whitewash as a background, and on to the plaster of the ceiling. It is decorative, but amateur work, and by no means on a level with the standard of work throughout the rest of the house. The design is purposely of a non-committal pattern, for there would be no use in removing the fittings of a chapel if the decorations of the room proved that it was used for religious purposes.

There is another room which, through the evidence of the decoration, must also have been used as a chapel, though tradition has lost all record of it. Here, under the whitewash, we have found that, with the exception of one place, the room is entirely powdered with gouttes, red and white, presumably emblematical of the Passion. These are on the plaster, on the whitewashed brick of the outer wall, on the stone mullions and reveals of the windows, and on the timber. The one unpainted piece of wall seems to have been used as the position for an altar since there is candle grease above. There has been a frieze of painted acanthus leaves, but this is rough work and not in good condition. The whitewash covering the decoration was apparently a thick coat applied hastily, possibly after the Titus Oates plot, to cover up a pattern which whilst there was religious toleration might be allowed to pass as a decoration, but could not safely be left exposed when the laws were more strictly enforced as a result of this scare.

The walls of the grand staircase are stippled in a very modern looking decoration, which is contemporary with or very slightly later than the original staircase put in by John Pakington. The colours are red, yellow ochre, and black. This staircase was removed, in or about 1909, by the Throckmortons, who owned the house, and is now at Coughton Court, but by the energy of the restorers of Harvington Hall an exact copy is being made and already half of it has been erected, and funds are gradually being collected to complete it. The fine banisters and newel posts of the staircase were copied in paint on the walls of the staircase; as they were at Knowle, Aston Hall, and elsewhere. There has been a wooden handrail attached to the painted banisters.

One of our most interesting finds has been on this main staircase. Behind a small quantity of loose plaster was a trace of yet another decoration which we are uncovering, and which proves to be a foliage pattern in grisaille

belonging to a built-up portion of an earlier house incorporated in this one. The date of this painting is about 1480. We are going to try to expose more of this wall. So far the only recognizable *motif* is the pomegranate.

The most decorative series of paintings, however, is on the walls of the passage and newel stairs. The plaster here, as elsewhere, is of very fine quality, and it is rather astonishing to find the artist has continued his work from this beautiful background on to the underside of the treads of the stairs, which are of the roughest wood. There were at least three people at work, probably four. Some of the figures are exquisite, some very poor. Amongst the scroll-work we have found a hare, a hound, and an eagle, but the majority of the decoration consists of grotesque figures amidst handsome scrolls, bearing leaves and fruit, and pots of flowers (pl. LXXXVIII, *a-c*).

The only history of these paintings that we have is in Father John Brownlow's diary where he speaks of the 'perverted' arabesque drawings with which some of the walls were decorated by John Pakington. This would be about 1570. He also tells us that Lady Yate had them whitewashed over because she did not like the naked figures. We have no knowledge where Fr. Brownlow got his information. In his time these paintings were entirely concealed by the whitewash that is only now being removed.

But of all the decoration at Harvington Hall some of the finest draughtsmanship is on the corridor leading to the principal bedrooms. That there should be a corridor of this sort in a house of this period is unique, but the paintings prove that it was contemporary.

On this corridor are the remains of six very interesting pictures of approximately 60 ft. by 100 ft., which, from the subjects, I conclude are the remains of a series of the Nine Worthies. There is room for the nine.

Of the probable nine, the three Pagans, three Jews, three Christians,¹ there are only six left and two fragments of which one only, David, belongs to the list.

Looking back through the cult of the Nine Worthies, which persisted so strongly and in every medium throughout the later Middle Ages, it seems that during the late fourteenth and fifteenth centuries the list of the nine never or rarely varied, but that in the late fifteenth and the sixteenth centuries the list was altered to suit the taste of the poet, artist, or craftsman. Thus we have Richard Lloyd in 1584 introducing Pompey the Great as his second and Guy of Warwick as his ninth Worthy, and Shakespeare very soon afterwards introduced Pompey and Hercules amongst the number. Frederick Barbarossa appears on a Burgundian set of tapestries of about 1460. Guy of Warwick

¹ The 'official' list is:

Joshua	David	Judas Maccabaeus
Hector	Alexander	Julius Caesar
Arthur	Charlemagne	Godfrey of Bulloigne



Yew Tree House, Ombersley

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appears on a set of Elizabethan silver spoons too. To make the dozen the craftsman has added The Master or Saviour, St. Peter, and Queen Elizabeth.

Whether Richard Lloyd's extraordinary little book, 'A brief discourse on the renowned acts and right valiant conquests of those puissant Princes called the Nine Worthies (compiled by Richard Lloyd, Gentleman, 1584)', was ever very popular, I cannot say (there is apparently only one copy left and that is in the Bodleian), but it does contain an unusual amount of information for the would-be artist, and quite a lot of moral advice too. Richard Lloyd's sense of poetry is not of a very high order and seems more reminiscent of a nineteenth-century pantomime than of the Golden Age of English literature.

'I am Guy the Barron bold, of deed the doughtiest knight' sounds for instance like the entrance of the Bold Bad Baron, but his descriptions may have influenced the artists of the time. Of Pompey he says,

His head was white and curled I find, his beard was white, he was sand-blind
And somewhat he did lisse also, a gentler wight no man might know.

It was not only in England, of course, that the Worthies were popular. Pierre Gerard's work of 1487 on the Worthies was reprinted in Paris in 1507, by which time it seems to have been translated into Spanish and to have gone into several editions in that language.

The Nine Worthies are carved and were painted on the exterior of Montacute, and are in Aston Hall carved in niches in the frieze of the great drawing-room. There are ceilings in two Scottish houses which are decorated with them (Earlshall 1620, Crathes Castle 1599) as is the ceiling of the Bromley room, now in the Victoria and Albert Museum. We have innumerable references to sets of tapestries of the Nine Worthies, but as far as I know there are only two examples of wall-paintings of them remaining in England. The one, found at Amersham in 1931, which is typical Tudor-English work, and this other at Harvington Hall.

In the Harvington set are David (pl. LXXXVIII, *g*), Hercules, Pompey (?), King Arthur (?), Samson (pl. LXXXVIII, *e*), whom I have not found anywhere else amongst the Worthies, and a picture of a knight on horseback trampling on a king and two other dead men. This last may be either Joshua or Judas Maccabaeus, or neither (pl. LXXXVIII, *f*).

The artist is a first-class draughtsman, except that he cannot or will not draw trees, but he is not the typical house-decorator of the early seventeenth century, for a narrow landing, where one cannot get any distance away, is not the place to decorate with battle scenes and others of such large dimensions.

Yew Tree House, Ombersley

This house, apart from the painted room, is of no interest whatever. Part of the structure is seventeenth century, and it has later additions. It has

apparently never been anything but quite a small house, right on the road, but in a fairly isolated part of Worcestershire, near to Ombersley.

The discovery of the painted room was made at the end of 1937, when the house was bought by Mr. James Cond and alterations were being made. The paintings are on the south wall of an upstairs room (pls. LXXXIX, xc). There was apparently much painted plaster left on the walls when the alterations were started, but I did not arrive in time to save it.

Apart from the fact that a large quantity of the wall was in bits on the floor when I first saw it, the paintings were in very good condition and very charming. They had been preserved because they had been covered by battens on which were lath and plaster and wallpaper. I managed to put back the majority of the bits, but in one panel I put what are obviously pieces from the bottom of the wall into a middle panel because I had nothing else with which to make it up. The beams, of course, should have been replastered, but both Mr. and Mrs. Cond objected strongly to this, so I finished it to 'match' the rest of the room.

These paintings are of the late seventeenth or early eighteenth century and show a Chinese influence. The birds are of a very unusual type, especially the pelican (pl. xc). I think there can be no doubt that this is meant to be a pelican vulning herself for her young. It is interesting to compare it with an almost contemporary pelican, carved, not painted, at St. James's, Piccadilly.

In this case it is interesting to see that whereas on this wall all the beams were covered with painted plaster, on the adjoining wall the plaster had come flush with the upright beams and the horizontal beams projected. On this wall there were traces of paint on the beams themselves, showing that the pattern had been continued in spite of the uneven surface.

A great part of the general interest of these paintings is that we have discovered in a comparatively short time, in one county not hitherto considered rich in this sort of work, domestic mural paintings carrying the history of the art from the last days of the medieval period into the full flower of the English renaissance. We are also fortunate in Worcestershire that all the owners have co-operated wholeheartedly in the protection of these pictures. The little work we have of this type in England is such that to the student of the history of art every fragment is precious. And when one sees, as I have done in the course of my wanderings, paintings of this sort noted by observers at the time, but in one case sold to America and in another case so little esteemed that there is at present a scheme afoot which will destroy them entirely, one is the more grateful for the attitude adopted by the owners of these treasures in my own county.



Part of the wall-painting at Yew Tree House, Ombersley (slightly under $\frac{1}{2}$); see pl. LXXXIX

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